

- AGENCY APPROVALS:
- 1) U.S. Army Corps of Engineers Rivers and Harbors Act §10 *Dredging and Disposal General Permit No. 24221N*, issued June 14, 2001, expires December 31, 2011;
 - 2) California Regional Water Quality Control Board – North Coast Region *Order No. R-1-2000-59 – Waste Discharge Requirements for Crescent City Harbor District Maintenance Dredging District Berthing Areas and Federal Channel*, issued August 25, 2000; and
 - 3) *Dredging and Disposal Lease No. PRC 5202.9*, State Lands Commission, issued June 27, 2000, expires July 31, 2010.

- SUBSTANTIVE FILE:
DOCUMENTS
- 1) Del Norte County Certified LCP;
 - 2) Federal Consistency Determinations Nos. CD-80-98 & 81-98;
 - 3) Coastal Development Permit No. 1-00-006;
 - 4) *Sampling and Analysis, Crescent City Harbor District, Crescent City, California*, AET Applied Environmental Technologies, November 9, 1999;
 - 5) *Revised Tier I Evaluation and Proposed Grain Size Sampling Plan, Crescent City Harbor District, Crescent City California* and addendum prepared by Applied Environmental Technologies, Inc, dated May 31, 2006 and June 23, 2006; and
 - 6) *Final Environmental Assessment for Fiscal Year (FY) 1998 Operations and Maintenance Dredging of the Crescent City Harbor Federal Channels, Del Norte County, California*, U.S. Army Corps of Engineers, August, 1998.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission approve with conditions the dredge material disposal project. Similar to that proposed and authorized by the Commission in 2000 for a five-year period (see Coastal Development Permit No. 1-00-006), the Crescent City Harbor District (“District”) proposes to dredge inner channel, berthing and boat launch areas in Crescent City Harbor, on an as-needed basis, with disposal at either an existing

upland disposal facility or, for dredged material deemed suitable for indirect beach nourishment, at an aquatic site in the surf zone outside and down current from the harbor. The project is necessary to dispose of materials that would be dredged from the harbor in order to maintain previously dredged depths in existing navigational channels, turning basins, berthing areas and boat launching ramps. The project is essential for recreational boating and commercial fishing operations, as well as other coastal dependent and coastal related operations that make use of the Crescent City Harbor.

While the proposed dredge material disposal would facilitate the continuance of high priority uses under the Coastal Act, the project nevertheless raises Coastal Act issues pertaining to the protection of marine resources and environmentally sensitive habitats, maintenance of water quality, protection of visual resources, and minimizing restrictions to public access and recreation.

Generally, the greatest potential for environmental effects from dredge disposal operations lies in the benthic environment. In this case, the subject benthic environment includes ocean bottom and water column flora and fauna located just outside of the harbor. The placement of dredge materials determined to be physically or chemically unsuitable for aquatic disposal could result in long-term adverse impacts to marine resources and environmentally sensitive species and habitats. Similarly the discharging of suitable materials in volumes greater than the high-energy wave action of the nearshore environment can dilute, dissipate, and transport, could similarly cause harm to marine biota and adversely alter coastal bathymetry.

Water quality impacts resulting from aquatic dredging disposal operations can also occur through changes in a number of variables, including dissolved oxygen, pH, salinity, total suspended solids, and turbidity associated with the introduction of sediment materials into the surf zone. Moreover, the physical presence and operation of the dredging equipment could also disrupt utilization of the harbor shoreline habitat areas in adjoining areas, most notably, protected marine mammals such as harbor seals.

The project could affect public views to and along the ocean due to the presence of the floating dredge and associated floating sections of pipe used in disposing the dredged materials. The flexible above-ground pipelines used to transport suitable dredge spoils to designated upland disposal and indirect beach replenishment sites create, from time to time as they are moved about, impediments to pedestrian travel in portions of the harbor area and to or along the adjacent inner harbor beach.

Additionally, conducting the summer-fall seasonal maintenance dredging operations during summer through fall high-use periods or during public assembly events centered around the harbor could adversely affect public access and coastal recreational opportunities.

Although the proposal to dispose of dredge material into the surf zone and nearshore environment contains the potential to impact coastal resources, the project as proposed would again incorporate the mitigation measures developed during the 2001-2005 maintenance dredging program to minimize adverse environmental effects to such resources. These measures include: (1) a first-tier composited sites-based sampling of the physical and chemical composition of the sediments by harbor area as an initial screening method to ascertain which of five delineated harbor areas contain problematic sediments inappropriate for open ocean disposal; (2) secondary individual-sample based testing of the discrete areas within harbor areas proposed for dredging found not to contain sediment materials with composition or contaminant levels inappropriate for nearshore disposal based upon initial screening analysis; (3) mechanical limitations on the platform dredge's pump discharge volume of the sediments going into the Whaler Island/South Beach nearshore disposal area to prevent suspended solid levels exceeding more than 20 percent of ambient levels; (4) prohibitions on discharging dredged materials into the upland deposition basin during the harbor seal pupping season if seals are found within 500 feet of the facility; and (5) temporal limitations on conducting maintenance dredging activities during high public access use periods within and along the harbor, and/or concurrent with certain specified coastal-oriented recreational events.

Staff is again recommending that these proposed measures be attached as special conditions to the approval of the subject coastal development permit. To this end, recommended Special Condition No. 1 requires the applicant to submit, for review by the Executive Director for the need for any amendment to the permit, the letter of modification to be issued by the U.S. Corps of Engineers for the 2006-2011 maintenance dredging program. Special Condition No. 2 would prohibit upland disposal activities during the period of March 1 through June 15, if harbor seals are found within 500 feet of the disposal basin. Special Condition No. 3 establishes certain limits on the allowable unconfined ocean disposal of sediments to be dredged from the harbor. Special Condition No. 4 requires that the applicant provide an annual report on March 1 describing dredging operations conducted during the previous year's August through December period; Special Condition No. 5 sets prohibitions on the performance of maintenance dredging during specific high-use seasonal periods, holidays, and harbor-related public events. Special Condition No. 6 establishes performance standards for conducting maintenance dredging activities in a manner which will minimize impacts on coastal public access in and through the harbor and surrounding shoreline areas. Finally, Special Condition No. 7 limits the authorized dredged materials disposal activity to ten years unless specified circumstances arise that may affect the continued conformity of the project with the Chapter 3 policies of the Coastal Act. If such circumstances arise, the applicant would be required to cease development and obtain a coastal development permit amendment approved by the Commission.

The harbor dredging program is necessary to protect Coastal Act priority uses. In addition, staff notes that the proposed aquatic disposal would return material suitable for beach replenishment to the littoral system to benefit the overall long-term public use of

harbor and South Beach areas, consistent with Section 30233(b) of the Coastal Act. Therefore, staff recommends that the Commission find that the project as conditioned is consistent with the Chapter 3 policies of the Coastal Act and approve the permit.

STAFF NOTES:

1. Permit Exemptions for Dredging.

Pursuant to Coastal Act Sections 30610(c), no coastal permit is required for “maintenance dredging of existing navigation channels or moving dredged material from those channels to a disposal area outside the coastal zone, pursuant to a permit from the United States Army Corps of Engineers.” Further, under Coastal Act Section 30610(d), as detailed in Section 13252(a)(2)(A) of the Commission’s administrative regulations, any method of routine maintenance dredging that involves the dredging of less than 100,000 cubic yards within a twelve month period similarly does not require a coastal development permit. As the applicant proposes dredging of a portion of an existing navigation channel that would be subject to a permit issued by the Corps of Engineers and as the proposed maintenance dredging of other non-navigational channel areas within the harbor would involve less than 100,000 cubic yards in a twelve month period, no coastal development permit is required for the dredging portions of the project.

Pursuant to Coastal Act Section 30106 and Section 13252(a)(2)(B) of the Commission’s administrative regulations, however, a coastal permit is required for disposal of dredge material onto areas within the coastal zone. The applicant has requested to dispose of suitable dredged materials into the nearshore area adjacent to the Harbor’s Whaler Island Breakwater. Dredged materials deemed unsuitable for aquatic disposal are proposed to be disposed of in an upland sedimentation pond. Both of these areas are located within the coastal zone. Therefore, the applicant has applied for a permit to authorize disposal at both the aquatic and upland disposal sites.

2. Jurisdiction and Standard of Review.

The proposed dredged materials disposal project sites are located in existing tidelands or former tidelands shown on State Lands Commission maps as being subject to the public trust. These lands are within the Coastal Commission’s area of original or retained jurisdiction. Therefore, the standard of review is the applicable Chapter 3 policies of the Coastal Act.

3. Other Required Permits.

As stated above, the actual dredging activity is primarily regulated by the U.S. Army Corps of Engineers. In addition, the California Regional Water Quality Control Board regulates the discharges of materials into waters subject to the federal and state Clean

Water Acts. In 2001, the District received from the Corps of Engineers a ten-year general permit to authorize the proposed dredging and disposal activities that. In addition, the Regional Water Quality Control Board concurrently issued Order No. R-1-2000-59 setting waste discharge requirements for both the dredging and dredge spoils disposal portions of the project. Finally, the State Lands Commission in 2000 issued a ten-year lease for conducting the dredging project in state waters and/or areas subject to a public trust review.

I. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL.

Staff recommends that the Commission make the following motion and adopt the following resolution to APPROVE the permit application with special conditions.

MOTION:

I move that the Commission approve Coastal Development Permit No. 1-05-058 pursuant to the staff recommendation.

Staff recommends a YES vote. Passage of this motion will result in adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION OF APPROVAL WITH CONDITIONS

The Commission hereby approves Coastal development Permit No. 1-05-058, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located between the nearest public road and the sea and is in conformity with the public access and public recreation policies of the Coastal Act, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS: See attached.

III. SPECIAL CONDITIONS:

1. Conformance with USACE Requirements

PRIOR TO COMMENCEMENT OF OPERATIONS AUTHORIZED UNDER THIS PERMIT, the permittee shall submit to the Executive Director for review: (1) a

copy of the Letter of Modification to U.S. Army Corps of Engineers Permit No. 24221N, or evidence that no other USACE permit is necessary. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

2. Protection of Harbor Seal Pupping Grounds

During the period spanning March 1 to June 15, no disposal of dredge spoils into the Uplands Deposition Area may occur if harbor seals (*Phoca vitulina*) are found within 500 feet of the disposal facility. Once the seals have left the vicinity of the sedimentation pond beach area, and are not found within 500 feet of the disposal facility, dredge spoils operations may resume.

3. Scope and Term of Permit Approval

The development authorized by this coastal development permit is limited as follows:

- a. Aquatic disposal at the Whaler Island Beach and Nearshore Deposition Area is authorized for only those dredged materials originating from Dredge Area 3, 4, and 5 found to contain a minimum 80 percent sand content and acceptable levels of total organic carbon, as set forth in the Sampling Assessment Plan and addendum titled "Revised Tier I Evaluation and Proposed Grain Size Sampling Plan, Crescent City Harbor District, Crescent City California," prepared by Applied Environmental Technologies, Inc, dated May 31, 2006 and June 23, 2006, respectively, as approved by the U.S. Army Corps of Engineers, with the concurrence of the U.S. Environmental Protection Agency, on June 17, 2006;
- b. No more than 800 cubic yards of suitable dredge material may be deposited for aquatic indirect beach nourishment during any 24-hour period;
- c. All other dredged materials originating from the proposed dredge areas having less than a minimum 80 percent sand content shall be disposed of at the Crescent City Harbor District's Upland Deposition Area, subject to all applicable federal, state and local regulations; and
- d. Coastal Development Permit No. 1-05-058 does not authorize the disposal of any dredge spoils, either by aquatic or upland disposal, other than those materials authorized for maintenance dredging under USACE Permit No. 24221N.

4. Annual Report

By March 1 of each year, the applicant shall submit to the Executive Director an annual status report as to maintenance dredging and spoils disposal activity that occurred during the preceding calendar year. The report shall provide the following information:

- The dates, times, amounts, the Dredge Area sources, and Deposition Area locations of the materials that were dredged and disposed; and
- Copies of all related water quality discharge monitoring and quarterly reports, as required by Special Condition No. 5(A)(1)(c), the North Coast Regional Water Quality Control Board and the California State Lands Commission.

5. Timing of Aquatic Dredge Spoils Disposal Operations

To avoid adverse impacts on fish and wildlife habitat and public access and recreational use, aquatic dredge disposal operations at the Whaler Island Beach and Nearshore Deposition Area shall not occur between January 1 through July 31, or during the following significant coastal access or recreational related local events:

- (1) Crescent City Triathlon (late August)
- (2) Labor Day (early September);
- (3) Coastal Clean-up Day (mid September);
- (4) Noll Longboard Classic (late September); and
- (5) Sea Cruise (early October).

6. Public Access

- A. Deposition of dredge spoils materials, either at aquatic or upland disposal areas, shall not result in closure (either fully or partially), or a reduction in hours of operation of, the following beach areas and recreational facilities: Beach Front Park, Shoreline Campground Accessway, Crescent City Harbor, Whaler Island Breakwater Causeway, South Beach, or Crescent Beach during the period of May 1 through December 31.
- B. The permittee shall ensure that dredge spoils disposal operations are conducted as to minimize, to the greatest extent possible, any interference with public access to and along the Crescent City Harbor Beach and the Whaler Island Breakwater and Causeway. In particular, the permittee shall work with the dredge operator to implement the following measures for those pipeline segments occupying the beach or breakwater, including but not limited to:

- 1) Scheduling and coordinating disposal operation times and locations so as not to interfere with high priority coastal-dependent uses (i.e., access to the U.S. Coast Guard dock, commercial fishing related traffic) and significant coastal access and recreation events including but not limited to those identified in Special Condition No. 5.A.1), above (e.g., fishing “derbies,” surfing contests, Christmas/New Years bird counts, ornithological festivals, beach clean-up days, sailing flotillas, etc.);
- 2) Uncoupling segments of the suction pump slurry pipeline when not in use to allow unimpaired pedestrian or vehicular movement, or building small-scale sand ramps over the pipeline; and
- 3) When not in use, proper storage of dredge disposal pipeline in a location where interference with public access would not result.

7. Length of Permit Authorization

A. The development authorized by this permit is valid for ten years from the date of the Commission’s approval unless any of the following occur within the project area:

- The listing of a species that occurs within harbor and nearshore areas;
- The discovery of any previously unknown sources of contamination of the dredged material to be disposed of; and
- The discovery of any heretofore unknown coastal resources, such as the presence of archaeological or paleontological materials in and in proximity to the project area, which may be affected by the subject maintenance dredging program.

B. The permittee shall immediately inform the Executive Director of any of the circumstances specified above and all dredged material disposal activities shall cease and shall not recommence without obtaining a coastal development permit amendment approved by the Commission.

8. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF MAINTENANCE DREDGING ACTIVITIES AND THROUGHOUT THE PERIOD OF PERMIT AUTHORIZATION, the permittee shall provide to the Executive Director a copy of a permit issued by the U.S. Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the U.S. Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this

coastal development permit, unless the Executive Director determines that no amendment is required.

9. NOAA Fisheries Approval

PRIOR TO COMMENCEMENT OF MAINTENANCE DREDGING ACTIVITIES AND THROUGHOUT THE PERIOD OF PERMIT AUTHORIZATION, the permittee shall provide to the Executive Director a copy of any incidental take permit or other approval issued by NOAA Fisheries, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the National Marine Fisheries Service. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT BACKGROUND

Based upon data collected for the “General Investigation Study” (U.S. Army Corps of Engineers, July, 1981), approximately 80,000 to 100,000 cubic yards of sediment enters the Crescent City Harbor annually from riverine and longshore current transported sources. Since the harbor acts as a basin in which suspended sediments settle out when the dynamic forces of tides and currents are reduced behind its protective breakwaters and jetties, sand accretion is the most serious maintenance issue facing the Crescent City Harbor District (“District”). But for the harbor, much of these materials would continue in littoral drift transport and be deposited along South Beach, a stable sandy beach adjacent to and south of the harbor [see Exhibit Nos. 1, 2, and 3].

On July 13, 1963, by Senate Bill No. 1383, the State of California transferred all rights, title, and interest to portions of the submerged and tidelands within Crescent City Harbor and surrounding ocean waters to the District. In granting these ownership rights, the State Lands Commission (SLC) has retained authority over these former sovereign lands through both exempted and reserved rights to all deposits of minerals, and its public trust responsibilities under the state Constitution [see Exhibit No. 6].

The District has been dredging the inner harbor, berths and slips for the last 35 years. The District’s last sixteen years of dredge spoils disposal activities were conducted under Coastal Development Permit No. 1-88-115, issued for a ten-year period commencing on August 8, 1988. CDP No. 1-88-115 authorized the annual dredging and disposal of up

75,000 cubic yards of accumulated bottom sediments from five locations within the harbor at both upland and aquatic disposal sites.

This permit was subsequently amended twice to: (a) extend the expiration date by seven months to March 31, 1999 (1-88-115-A1); and (b) to further extend the permit term to September 30, 1999 and allow for an additional 10,000 cubic yards of materials to be dredged and placed at the upland disposal facility (1-88-115-A2). In addition, Emergency Permit No. 1-99-039-G was issued on June 14, 1999 to allow the District to dredge an additional 1,500 cubic yards of materials from two critical areas within the harbor where boat repair facilities had become inaccessible to vessels.

Maintenance dredging for the period 2000-2005 was authorized by Coastal Development Permit No. 1-00-006, issued on March 14, 2001. Although a ten-year authorization was requested, the Commission limited authorization to five years, which ended on March 13, 2006. The authorization was limited to a five-year period to allow the Commission to allow for a timely reassessment of the maintenance program's Coastal Act conformity engendered by any substantive changes in regulatory programs or physical conditions at the harbor environs.

The District's work has been performed in conjunction with the U.S. Army Corps of Engineers (USACE) dredging of the Entrance Channel and the Inner Harbor Basin Channel to a depth of -20 feet Mean Low Low Water (MLLW) and -15 feet MLLW, respectively. By comparison, the District maintains a design draft depth of between -10 to -15 feet MLLW for its boat marina and berthing areas. The entrance and inner channel dredging activities conducted previously in 2000 by the USACE were the subject of Consistency Determination Nos. CD-080-98 and CD-081-98.

The District's Uplands Deposition Area disposal facility consists of an approximately 70,000-cubic-yard-capacity levee-walled sedimentation pond located adjacent to the harbor's small boat marina. During the USACE's 2000 entrance and inner channel maintenance dredging season, approximately 18,000-20,000 cubic yards of dredged material was removed from the harbor and placed into the District's upland facility. Based upon the USACE's 1998 estimate of a remaining capacity of approximately 38,000 cubic yards, the upland disposal facility can currently accommodate less than 20,000 cubic yards before reaching its designed containment quantity. Until its closure in 2004, the Del Norte Solid Waste Management Authority annually accepted and removed approximately 10,000 to 12,000 cubic yards of decanted spoils materials from the upland disposal facility for dry-season use as "day cover" at the Authority's sanitary landfill.

Aquatic disposal of suitable dredge materials was also authorized and undertaken in the past by the District. However, in 1997, following concerns raised by the California Department of Fish and Game regarding potential impacts to benthic organisms from direct spoils placement at one of its surf zone disposal sites off of South Beach, the

District discontinued all of its nearshore disposal activities and depended solely on disposing of all dredged spoils, regardless of their suitability into its upland facility.

On June 27, 2000, the State Lands Commission issued Dredging and Disposal Lease No. PRC 5202.9 granting permission to the District to dredge and dispose of sand, gravel, and silt and clay at approved disposal sites for the purpose of improvement of navigation (see Exhibit No. 7). The lease commenced on August 1, 2000, with a ten-year term running through July 31, 2010. Although year-round disposal is provided for at the upland facility, near shore disposal at the Whalers Island site is limited to the period of August 1 through December 31 of each year.

On June 14, 2001, the District secures a ten-year permit from the USACE for its dredging and indirect beach nourishment spoils disposal work (see Exhibit No. 7). This authorization runs through December 31, 2011 and permits the extraction of up to 100,000 cubic yards of dredged materials annually, or a maximum of 1,000,000 cubic yards over the term of the permit, from the Waters of the United States comprising Crescent City Harbor. As noted above, on March 14, 2001, the Commission approved Coastal Development Permit No. 1-00-006 authorizing dredging activities for five years. Although the applicant had requested a ten-year permit term, the Commission time-limited the permit authorization to five years. Coastal Development Permit No. 1-00-006 also contained video monitoring requirements for verifying that the approved nearshore discharge of dredged materials suitable for beach replenishment with the inclusion of specified performance standards could be performed in a manner where significant increases in suspended solids within surrounding waters would not result. The video-taped monitoring conducted during the 2002 round of dredging demonstrated that increases in suspended solids within the ocean waters surrounding the discharge line could be kept within 20% of ambient background levels.

On July 17, 2006, the District received approval of a sampling and analysis plan (SAP) for the current proposed round of maintenance dredging to be conducted during 2006-2010 (see Exhibit No. 9). The approved SAP summarizes the results of first-tier, composite-based physical and chemical testing conducted in the harbor in 1996, 1998, 1999, and most recently in December 2002, wherein the initial characterization of the sediments derived from the innermost portions of the Harbor, "Areas 1 and 2," were found to be inappropriate for unconfined ocean disposal and accordingly, were designated for land disposal only. The SAP approved by the Corps sets forth provisions for additional individual testing of portions of Areas 3 through 5, specifically those portions of the harbor specifically contemplated for unconfined ocean disposal.

B. PROJECT LOCATION AND DESCRIPTION

1. Project Location.

Crescent City Harbor is located on the Northern California coast about 280 miles nautical north of San Francisco and about 17 miles south of the California-Oregon border (see Exhibit Nos. 1 and 2). The harbor is located on the south edge of a broad marine terrace bordered on the south and west by the Pacific Ocean and on the north and east by the urbanized area of the City of Crescent City. Marine-oriented commercial and recreational industries are the primary uses of the harbor area. Crescent City Harbor contains a 308-berth commercial small boat basin, a 527-slip recreational moorage facility, two fish processing plants and docks, a main dock, a marine synchro-lift and repair facility, a U.S. Coast Guard dock, and other auxiliary commercial and recreational developments.

The harbor's naturally crescent-shaped beach is bounded by a 4,700-foot-long, rubble-mound outer breakwater to the west, a 2,400-foot-long sand barrier to the east, and a 1,600-foot-long rubble-mound inner breakwater to the south, constructed by the USACE in 1939. The harbor's entrance is oriented to the south and is about 2,000 feet across. The harbor bottom is an irregular rock surface, with numerous pinnacles projecting above the water's surface. Near the harbor entrance, the bottom material tends to be sand, with more finer-grained sediments found in other parts of the inner harbor.

The most prominent geographic feature of the harbor is Whaler Island, which reaches a height of +70 feet MLLW. Although historically an island, Whaler Island is connected to the mainland by a rock-revetted, sand barrier breakwater. In the mid-1980s following damage caused by direct and refracted storm waves, a 280-foot sill-groin structure was constructed from Whaler Island angling out and away from the island and breakwater. The surfaces of the rock groin and breakwater serve as rocky intertidal habitat for a variety of marine organisms. In addition the resulting v-shaped cove formed by these structures locally improved surfing conditions at upper South Beach as well as provides a small recreational beach sheltered from direct open ocean wave exposure.

2. Project Description.

The Crescent City Harbor District proposes to dispose of up to 100,000 cubic yards of sediment materials per year to be removed from portions of the harbor identified as Dredge Areas 2 through 5, comprising the harbor's inner channels, marina, and berthing facilities, on an as-needed basis (see Exhibit Nos. 3 and 4). No dredging in Area 1, the innermost portion of the small boat basin, is proposed during this ten-year maintenance cycle. The dredge spoils are pumped from the floor of the inner harbor by the District's barge-mounted, hydraulic suction dredge. The suction dredge spoils slurry is conveyed via a 12-inch-diameter flexible pipeline to one of two deposition sites:

Uplands Disposal Site: Due to their high fines content and/or the presence of hazardous material contaminants as determined by initial compositional and chemical screening conducted in 2002, materials originating in Dredge Areas 1 and 2 will be deposited into the District's 15-acre Uplands Deposition Area disposal facility located to the north of

the small boat basin. This facility, previously authorized for expansion to its current configuration under Coastal Development Permit No. 1-88-115 issued in 1988, consists of an approximately 70,000-cubic-yard-capacity, levee-walled sedimentation pond. The facility is located within the City of Crescent City's coastal development permitting jurisdictional area, and continued disposal of dredged materials is deemed a legal nonconforming use (see Exhibit No. 9).

Dredge slurry is discharged into the basin at its southeasterly side and flows through a series of four inter-connected settling ponds. Solids within the dredged materials slowly drop out of suspension and are deposited in the basin while the decanted water continues to flow through successive settling ponds, becoming decreasingly less turbid. Once the slurry water has reached the point where its suspended solids and settleable solids fall within acceptable standards set by the Regional Water Quality Control Board, they may be discharged back to the harbor. The sedimentation pond outfall is located at the southwest corner of the facility (see Exhibit No. 8).

Aquatic Disposal Site: This roughly triangular-shaped area is about 300 to 600 feet in width and extends approximately 1,000 feet northeasterly towards South Beach from the vertex formed by the breakwater and groin. Spoils originating from Dredge Area No. 3, 4, and 5 could potentially be disposed of at the Beach and Nearshore Deposition Area located in the small inlet formed by the inner breakwater and a rockpile groin at Whaler Island. This material has initially been determined by the U.S. Environmental Protection Agency and the U.S. Corps of Engineers in 2002 to be suitable for beach nourishment (i.e., $\geq 80\%$ sand, without appreciable contaminants) based upon data derived for composited sampling of sediments from these areas. Materials will undergo nearshore disposal only if the results of compositional and chemical analyses of individual samples subsequently taken from the precise localities within Areas 3-5 proposed for dredging show that the materials have a minimum 80% sand composition and do not contain inappropriate levels of total organic carbon.

Dredged materials would be placed between the southern side of the breakwater and the groin, either in the surf zone at high tide, or on the perched beach at low tide. Where necessary, the sand would be spread mechanically to evenly distribute the sand over the deposition area. Due to dredging equipment limitations, the maximum quantity of material that would be disposed at any one time and any single site would be approximately 800 cubic yards during an 8-hour workday. Due to concerns regarding potential impacts to razor clam beds previously stated by the California Department of Fish and Game during previous maintenance dredging permit reviews, the District does not propose any aquatic disposal via direct beach nourishment along the intertidal reaches of South Beach.

In addition to the suction dredge, a truck-mounted clam-shell dredge is used to remove materials from boat slips and berths where there is not adequate room in which to station the barge dredge. These materials would be trucked directly to the Uplands Disposal Site.

As discussed previously, this coastal development permit is only for the deposition of dredged spoils materials. The actual dredging activities, which are required for the maintenance of both existing navigational channels and non-navigational berthing and moorage areas, are exempt from coastal development permit requirements. Section 30610(c) of the Coastal Act exempts maintenance dredging of existing navigation channels pursuant to a permit from the United States Army Corps of Engineers from requirements for a coastal development permit. Similarly, Coastal Act Section 30610(d) provides that any method of routine maintenance dredging that involves the dredging of less than 100,000 cubic yards in any twelve month period be exempted from coastal development permit requirements.

The aquatic disposal into near shore waters is a non-exempt form of development occurring within coastal waters. Likewise, the transmission via slurry pipeline of dredged spoils of any quantity through areas at and below the high tide line to the upland disposal site is a non-exempt form of development in and in proximity to coastal waters. As stated above, given the long history of the use of the upland disposal facility, the City of Crescent City considers continued use of the facility proper as a legal non-conforming use within the Coastal Zone – Harbor Dependent (CZ-HR) zoning district in which the facility is situated. Accordingly, no local coastal development permit has been issued for this use by the City.

The dredging activities within harbor Areas 3 through 5 that will provide both the materials found suitable for indirect beach nourishment and those requiring upland disposal have been conceptually approved by the USACE under Permit No. 24221N. The USACE permit approval allows no more than 100,000 cubic yards of material to be dredged in each one-year dredge season using a hydraulic suction dredge. Only dredged material deemed suitable using USACE / U.S. Environmental Protection Agency standards (i.e., materials containing a minimum $\pm 80\%$ sand content, acceptable levels of total organic carbon (TOC), and without appreciable concentrations of chemical contaminants) would be used for indirect beach nourishment.

To assure consistency between Commission and USACE authorizations issued for this round of maintenance dredging, the Commission attaches Special Condition No. 1. Special Condition No. 1 requires the applicant to provide for the review of the Executive Director, a copy of the letter of modification issued for the 2006-2011 dredging cycle once it has been issued by the Corps. Commencement of dredging operations is to occur only after the Executive Director has reviewed the letter of modification and made a determination as to whether a permit amendment must first be secured.

Determining the Suitability of Dredge Spoils for Aquatic Disposal

The suitability of dredge spoils for ocean disposal is a function of the biological, chemical and physical qualities of the subject materials as determined through sediment sample analysis. The applicant has provided a baseline evaluation of the suitability of the

dredge materials for beach disposal. This evaluation is contained within the report titled "Tier I Evaluation and Proposed Grain Size Sampling Plan, Crescent City Harbor District, Crescent City, California," by AET Applied Environmental Technologies, Inc. of Ventura, California, dated March 24, 2006, as amended on June 23, 2006 (see Exhibit No. 5).

Grain-size composition is an important indicator of aquatic disposal material suitability from both physical and chemical perspectives. First, the fractional make-up of dredged materials being considered for aquatic disposal, and especially those intended for beach nourishment applications, should approximate that found in the receiving waters area. If the spoils materials differ markedly in composition from those found at the proposed disposal area, they may either accumulate in the vicinity of the disposal site, burying underlying marine organisms, or conversely, be mobilized in littoral transport when intended to remain in a given place (i.e., direct beach nourishment). Second, the coarser the dredge spoils, the less likely chemical contaminants are to be present, as they are generally associated with finer fractions, namely silts and clays.

The report first presents a summary of past testing conducted in 1996, 1998, 1999, and 2002. The samples were analyzed to the nearest 1% for sand, silt, and clay consistent with procedures defined in: "Procedures for Handling and Chemical Analysis of Sediment and Water Samples," by Russell H. Plumb (1981), USACE Technical Report EPA/CE-81-1, pages 3-28 to 3-47. Further, measurements of the percentage of material retained in a #200 sieve were also recorded. Chemical analysis to characterize the composition of the sediments to be dredged from the harbor and to identify any compounds that may potentially be released as dissolved constituents to the proposed receiving water and sediment was also conducted. Among the classes of compounds examined were: (a) polynuclear aromatic hydrocarbons; (b) total recoverable petroleum hydrocarbons (TRPH); (c) pesticides; (d) polychlorinated biphenyls (PCBs); (e) organotins (as mono-, di-, & tri-butyltin); (f) metals and non-metals (arsenic); (f) total organic carbon; and (g) total solids/water content. Associated suspended particulate phase (SPP) and acute solid phase (SP) bioassay testing was conducted in accordance with the U.S. Environmental Protection Agency's (USEPA) and the Corps' inland and ocean testing manual protocols utilizing bivalve, polychaete, and amphipod subjects. In addition, four control samples were taken from four locations in and proximate to the proposed Whaler Island disposal site. Analytical measurements were also compared with reference values derived from cadmium chloride (CdCl) toxicity testing.

Based upon the results of these analyses, only the dredge materials originating from within Areas 3 through 5 of the Crescent City Harbor were determined by the U.S. Environmental Protection Agency to be potentially suitable for aquatic disposal. Conversely, due to their more mixed grain-size composition, elevated contaminant levels, and/or toxicity to marine organisms, the dredge spoils from Areas 1 and 2 were determined to not be suitable for beach and/or ocean disposal and must instead be disposed of within the Uplands Deposition Area disposal site.

The report continues on to present the proposed sampling and analysis plan that was approved by the Corp on July 17, 2006 (see Exhibit No. 9). Pursuant to the approved SAP, on July 20-21, 2006, a second round of grain size sample data was collected from four sets of discrete samples taken at 20 locations within the harbor Areas 3-5. The results of the laboratory analysis of the physical and chemical composition of these samples, will serve as the final determinant as to which portions of Areas 3-5 would be appropriate for nearshore disposal and which sub-areas must undergo land disposal. The results of the analysis is anticipated to be received in early August 2006. The Commission's Water Quality Unit has reviewed the sampling and analysis plan approved by the Corps and USEPA, and concur with the acceptability standards established by these agencies as being adequate for protecting coastal water quality.

To ensure that only materials suitable for nearshore disposal are discharged at the Whaler Island/South Beach site, the Commission attaches Special Condition No. 3. Special Condition No. 3 requires that only materials meeting the compositional and chemical constituent criteria set by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency be disposed of at the Whaler Island / South Beach site.

C. NEED FOR DREDGING - FACILITATION OF NAVIGATION

The Crescent City Harbor is one of only six harbors located along the North Coast, and is the primary recreational port between Brookings Oregon and Trinidad California. The District maintains approximately 835 berths and dory ties within the Harbor which are used by a variety of recreational and commercial vessels.

Maintenance dredging (including the disposal of associated spoils) of inner channels in Crescent City Harbor supports the navigational and commercial needs of the Crescent City Harbor District, the U.S. Coast Guard, and commercial fishing and recreational boats using the harbor. The Coastal Act contains strong policy language and legislative direction supporting and encouraging protection of "coastal-dependent" and "coastal related" uses, including shipping and boating uses, and commercial and recreational fishing activities. Sections 30101 and 30101.3 of the Coastal Act defines the terms "coastal-dependent" and "coastal-related," respectively, as follows:

"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

"Coastal-related" development means any use that is dependent on a coastal-dependent development or use.

Coastal Act Section 30001.5 states in part:

The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:...

(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast...

Section 30220 provides that:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30224 provides that:

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

Section 30234 provides, in part:

Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded....

Section 30234.5 provides in part:

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

Coastal Act Section 30255 provides:

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

Dredging maintenance of the channels within the harbor, including the proper disposal of resulting spoils materials, is necessary to provide access to berthing, unloading and loading, and repair areas. These channels need regular dredging in order to maintain the depth necessary for ingress and egress into the bay. The Coastal Act supports the

proposed maintenance dredging and spoils disposal program in Crescent City Harbor, because it is necessary to accommodate high priority uses such as those identified in Sections 30220, 30224, 30234, 30234.5, and 30255 of the Coastal Act.

D. FILL IN COASTAL WATERS AND PROTECTION OF MARINE RESOURCES

The proposed aquatic disposal / indirect beach nourishment portion of the project entails the placement of suitable dredged material on the beach and below the Mean High Tide Line (MHTL). This proposed placement of dredged material is a form of fill.

Section 30108.2 of the Coastal Act defines fill as:

...earth or any other substance or material ... placed in a submerged area.

Section 30233(a) of the Coastal Act reads as follows:

- (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following [including]: ...
- (2) *Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps...*

In regards to the use of fill materials in beach replenishment applications, Section 30233(b) of the Coastal Act states:

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

Section 30230 of the Coastal Act provides:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment

shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 provides, in part:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored ...

The above policies set forth a number of different limitations on what development projects may be allowed in coastal waters. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;
- that feasible mitigation measures have been provided to minimize adverse environmental effects;
- that the project has no feasible less environmentally damaging alternative; and
- that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

1. Permissible Use.

The first test set forth above is that any proposed fill, diking or dredging must be for an allowable purpose as specified under Section 30233 of the Coastal Act. The proposed fill would result from the disposal of suitable dredge spoils at the Whaler Island Beach and Nearshore Deposition Area for the indirect nourishment of the beach. The disposal site is located in an area that has previously experienced erosion along the breakwater revetment. The proposed development requests the placement of up to an estimated 99,073 cubic yards of beach suitable material over the ten-year maintenance program upon the beach and nearshore area between the Whaler Island breakwater and groin. This proposed development is an allowable use pursuant to Section 30233(a)(2) and 30233(b) of the Coastal Act as the proposed dredged material disposal is for the purpose of maintaining previously dredged depths in vessel berthing and mooring areas.

2. Providing Feasible Mitigation Measures.

The second test set forth by Section 30231 and 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. The applicant has submitted information prepared by the USACE in August 1998 for its Fiscal Year 1998 federal navigation channel operations and maintenance dredging of the Crescent City Harbor. This Final Environmental Assessment (FEA), prepared pursuant to the National Environmental Policy Act (NEPA), indicates that, due to the physical and chemical prerequisites for suitable aquatic disposal, the quantity limitations on the amount of dredge spoils being placed, and the seasonal limitations to avoid fish and wildlife mating seasons, adverse impacts to fish and wildlife habitat will be insignificant and short-term.

In addition to the conclusions contained within the FEA, Commission staff have consulted with staff from the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the California Department of Fish and Game regarding potential project impacts to fish and wildlife habitat associated with aquatic dredge spoils disposal. Based on information contained in the FEA and from the various agency consultations, the following environmental habitat analysis has been prepared:

Nearshore Environmental Characteristics

The Crescent City Harbor comprises an inlet of the North Pacific Ocean. The immediate nearshore area contains many of the most valuable marine resources within the North Coast and includes a diverse complex of marine habitats including deep sea, open ocean, kelp forests, sandy beaches, rocky seashore, estuaries and sloughs. These habitats support a variety of marine life including more than 345 species of fish, 94 species of seabirds, 26 species of marine mammals, 450 species of algae and one of the worlds most diverse invertebrate populations.

Beginning in 1939, the Crescent City Harbor was developed in a natural cove at the base of the Elk Creek estuary. Water originating from Elk Creek watershed drains into the northern end of the Harbor, northeast of the developed inner harbor area. Except for the coastal salt marsh and brackish muddy intertidal habitat areas within the lower reaches of Elk Creek, most of the northern harbor is now essentially a man-made environment that is devoid of the natural estuarine habitat that once prevailed there. The margins of the open waters of the harbor are surrounded, from the western and southern jetties, entirely by urban development. Thus, for the most part, the tidal waters of the Harbor are an enclave that is surrounded by urban development consisting of boats, floating docks, rip-rap revetments, roads and parking lots, public facilities and parks, a recreational vehicle park, and various other buildings associated with coastal-dependent and visitor serving uses. Nonetheless, some marine mammals, fish and seabirds make use of the aquatic and terrestrial environments provided in the Harbor and its surroundings.

The sandy beach areas adjacent to the Harbor included in the project area are very harsh environments, encompassing most of the rigors of the rocky intertidal (high wave action, wide temperature range, periodic tidal exposure) with the addition of high abrasion levels

and lack of firm substrate for attachment. Beach fauna exhibit the characteristics of communities in harsh environments, namely low species diversity but large numbers of individuals of each species. Because meiofauna (organisms inhabiting the interstitial spaces between the sand grains) are a distinct fauna from the more obvious macrofauna, the distribution of meiofauna is strongly influenced by the grain size of the sand. If there is a significant silt component in the sediment, the interstitial spaces are filled by the silt particles, impacting the interstitial fauna. However, in this case, because Special Condition No. 3 of this permit only allows the disposal of sandy material (over 80%), the impacts to meiofauna will be temporary and less than significant.

Despite the barren appearance of sand beaches, they support a diverse and abundant assemblage of macrofauna. These animals generally live buried in the sand, and are highly mobile, and are somewhat more difficult to study than, for instance, the more sessile organisms of rocky intertidal zones. Because the beach is a physically rigorous environment, physical factors often limit the distribution of these organisms.

These areas which macrofauna and meiofauna depend upon are subject to the influences of waves and tidal currents that keep beach material (their habitat) in continuous motion. Material generally moves across the beach or foreshore or even offshore in a process called littoral transport. This process generally moves material in a southeasterly direction at Crescent City Harbor and is most rapid under storm conditions. Beach structure at the project site is consistent with other Northern California beaches in that it exhibits a classic beach structure that is backed by a broad coastal plain, and bordered seaward by a sand dune berm, beach flat, trough, and surf line bar. In addition, there is a seasonal onshore-offshore movement of sand along this reach of coast, with steeper beach slopes and offshore bars in the winter, and gradual consistent slope in the summer.

Wave action produces a coarse, poorly consolidated, well-sorted (i.e. low variation in grain size), and therefore easily moved beach deposit behind the surf zone. Large waves lift these surface sediments into a granular suspension tossed shoreward and then seaward by the passing waves. Extreme storm waves can remove as much as a meter of surface sediments at water depths greater than 10 meters. The physical stability of the beach deposit increases with increasing water depth as wave-generated bottom currents decrease. As a result, bottom sediments grade from coarse to fine sand with increasing water depth and decreasing wave disturbance. Thus, under the proposed project, the relatively coarse sandy dredge materials are expected, for the most part, to become entrained in the local littoral cell and migrate first toward South Beach or the harbor entrance, and eventually undergo longshore transport downcoast.

Biological Setting

Mollusks: The intertidal reaches of South Beach provide habitat to a variety of infaunal organisms, most notably Pacific razor clams (*Siliqua patula*) and Little-neck clams (*Protothaca* sp.). The Pacific razor clam is an important bivalve mollusk harvested extensively by commercial and sport fisheries throughout its range from Pismo Beach,

California, north to the Aleutian Islands. Razor clams live in surf-swept and somewhat protected sand beaches of the open ocean. They are found from approximately 4 feet above the mean low water level down to depths of 180 feet. Little-neck clams are found from Baja California to the Aleutian Islands in coarse, sandy-rock muds of estuaries and on the open coast where they form dense colonies. High siltation caused by logging, upland development, dredging, and marina construction affect the abundance of Pacific littleneck clams. In addition, this species of clam is very sensitive to copper which is used in anti-fouling boat paint.

Crustaceans: The most prominent and commercially significant epifaunal species in the harbor and its environs is the Dungeness crab (Cancer magister). Adult crabs live on a variety of substrates, but generally prefer sandy-mud bottoms. Dungeness crabs are highly mobile, diurnally migrating between shallow and deeper waters in response to food availability. In addition, they change depths in response to local conditions, such as during storm surges. Adult Dungeness crabs congregate on the shallow sandy areas between March and July. From September through November, egg brooding females will partially bury themselves in shallow subtidal waters until their eggs hatch. The first life phase of young crabs is planktonic. As they mature into juveniles, the larvae settle out and remain in shallow water for 11 to 15 months before moving offshore. Sand crabs (Lepidopa sp., Blepharipoda sp.) also inhabit the harbor area.

Fishes: The water areas adjacent to the harbor proposed for aquatic disposal are inhabited by a wide variety of fish species, including Pacific herring (Clupea harengus (pallasi Valenciennes)), rockfish (Sebastes sp.), lingcod (Ophiodon elongatus), jacksmelt (Atherinopsis californiensis), chinook salmon (Oncorhynchus tshawytscha), coho salmon (Oncorhynchus kisutch), coastal cutthroat trout, (Oncorhynchus clarki clarki), steelhead (Oncorhynchus mykiss), and others. The range of Pacific herring encompasses much of the North American west coast from northern Baja California to the Bering Straits. While generally a pelagic species, mature fish return to coastal bays commencing in late November and early December, approximately two months before they spawn. The peak spawning period runs from January to March, with a second small but prominent spawning peak occurring from June to July. In large schools of mature fish, spawning occurs over a period of 1-7 days, most activity occurring at night. Eggs are spawned in the intertidal and subtidal areas. The eggs are adhesive, attaching most commonly on eelgrass (Zostera marina) and occasionally on other algae. Where eel grass is not as abundant, herring are known to broadcast eggs on rocks, rocky jetties, pilings, sandy beaches, and other submerged objects. An individual can spawn only once during the season, and the spent female returns to the ocean immediately after spawning.

Rockfishes are common inhabitants of the harbor area. Although their habitat and behavior are poorly known, juvenile rockfish are generally found near the ocean bottom, preferring water depths of 30 to 100 feet. The age of maturity is unclear in the literature, however, rockfish are known to spawn in Crescent City Harbor in winter and early

spring. The eggs are internally fertilized and the resulting larvae are released in the water column in the spring and dispersed widely by ocean currents.

Lingcod are widely distributed in coastal waters, ranging on the North American west coast from Baja California to Kodiak Island, Alaska. The species inhabits subtidal rocky areas, rocky crevices, and sometimes in intertidal reefs, at depths of 10 to 30 feet, as well as pelagic waters. Along the California coast, the mating season is December through March. Lingcod deposit large, strongly adhesive clusters of eggs on rocky reefs in the subtidal zone. The male fish guards and fans the eggs until hatching (about 6-7 weeks). The larvae are pelagic and extend their ranges from estuaries, to coastal waters, to deep offshore shelves. Small juveniles are mainly epipelagic, thereafter becoming demersal and concentrating near rocky inshore areas as they mature into adult individuals.

Jacksmelt are found in bays and ocean waters throughout the year, ranging from Baja California to the northern Oregon coast. They are schooling fish that prefer shallow water less than 100 feet deep and are most common in 5- to 50-foot depths. During late winter and early spring, jacksmelt immigrate from nearshore coastal areas to bay waters to spawn. Eggs are demersal and adhesive. Large schools of juveniles remain in the Bay through the summer, emigrating to coastal waters in the fall. Juvenile jacksmelt mature into adult individuals after two years.

Chinook and *coho* salmon, along with the Klamath Province steelhead and coastal cutthroat trout are the primary anadromous fish species that utilize the project area for habitat. Although highly variable by species and race, anadromous fish generally spend most of their lifecycles within the open ocean, transiting through nearshore waters only to enter freshwater streams, creeks, and rivers during seasonal mating “runs” occurring throughout the year. While technically the anadromous form of rainbow trout, the morphology and life cycle of steelhead is more closely related to Pacific salmon species. However, unlike salmon, steelhead do not usually die after spawning, but may have multiple mating years. In addition, the time in freshwater for both rearing juvenile and adult steelhead is generally more extended and variable compared to that for salmon.

Marine Mammals: Three species of Pinnipeds, the Stellar’s (Northern) Sea Lion (*Eumetopias jubatus*), the California Sea Lion (*Zalophus californianus*), and the Pacific harbor seal (*Phoca vitulina*), inhabit Crescent City Harbor and its surroundings. Stellar’s Sea Lions range from San Miguel (Channel) Island to Alaska. They are social animals, living in groups along the coast that grow especially large during breeding season that runs from mid-May to mid-July. Locally, Stellar’s Sea Lions have established large rookeries at Sugarloaf Rock near Point Saint George and Castle Rock in Humboldt County. By contrast, the breeding range and rookeries of California sea lions are generally limited to islands of southern California, western Baja California, and the Gulf of California, where females remain with their brooding young. Only males of the species are known to move throughout its full range, spanning northward to the Gulf of Alaska. Harbor seals are found in the northeast Pacific ranging from Alaska to Baja

California. They favor near-shore coastal waters and frequent sandy beaches, mudflats, bays, and estuaries. Adult females usually mate and give birth every year. In California, harbor seal pups are born in March and April.

Protecting the General Marine Environment

The applicant is proposing several measures to avoid any adverse effects to the general marine environment. These measures include avoiding the use of sediment dredged from areas where sediment testing indicates incompatibility in physical composition and/or the presence of elevated contaminant levels. These areas to be avoided include Dredge Areas 1 and 2, corresponding to the inner and outer portions of the small boat basin, Citizen's Dock, and the mooring berths and boat slips along the north side of the Whaler Island breakwater (see Exhibit Nos. 3 and 4). Avoiding the use of materials from these areas will preclude the application of spoils whose grain size composition is not compatible with that of the receiving waters and/or prevent release of contaminants.

Additionally, due to the inherent limitations of the District's suction dredge, beach and nearshore disposal is restricted to 800 cubic yards per workday. While the associated maintenance dredging will be conducted on a part-time, as-needed, site specific basis, it is estimated that the District is capable of performing a maximum total of 88,000 cubic yards of beach disposal per year. By limiting the scope of this indirect beach nourishment project, the District's proposal will not have significant impacts on marine or estuarine waters.

Protecting Biological Resources

Generally, the greatest potential for environmental effects from dredged material discharge lies in the benthic environment. In this case, the subject benthic environment includes ocean bottom flora and fauna of the sandy intertidal areas between Whaler Island and South Beach. Under the proposed project, dredge slurry would be pumped from Harbor navigational channels and berths into the surf line at the Whaler Island breakwater/groin-sill covelet or immediately offshore in the vicinity of the harbor's southern breakwater. The substrate of benthic environment in these locations consists of sandy beach and/or a sandy ocean bottom. These environments are dynamic and contain ever-changing habitats for a variety of benthic species due to their location within a counter-clockwise gyre caused by the harbor within the otherwise southerly littoral cell in the waters off of South Beach.

Adverse impacts to fish and other marine organisms, and wildlife would be minor, short-term. Only those materials originating from Dredge Areas 3, 4 and 5 determined to be appropriate for aquatic disposal and beach nourishment applications, will be disposed of in coastal waters. Further, due to limitations associated with the District's dredging equipment, only a nominal amount of dredge spoils would be released into the receiving nearshore area. Furthermore, clam bed areas formerly exposed to potential dredge disposal associated with past direct beach nourishment activities on South Beach will not be so affected by disposal at solely at the Whaler Island inlet. Moreover, although upland

disposal activities may be conducted year-round, aquatic disposal is limited to the period of August through December, prior to the mating season of the various affected epifaunal species.

Nevertheless, while Dungeness crabs are highly mobile, it is possible that some mortality of individuals would result from the dredge spoils aquatic disposal. However, crabs will generally avoid any localized negative water quality effects and leave the area of disturbance. In addition, the project work is scheduled to avoid mating season, when crabs concentrate in the shallows, further minimizing any impacts. A similar situation exists with respect to other marine fishes. While adults and juveniles are mobile enough to avoid the disposal area, the project is scheduled to occur when sessile eggs would not be exposed to potential short-term burial impacts.

Lingcod, the numerous rockfishes, and *coho* and *chinook* salmon are among the 89 species identified by the National Marine Fisheries Service (NMFS) for which Essential Fish Habitat standards were developed pursuant to the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act. "Essential Fish Habitat" (EFH) is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." "Waters" include aquatic areas and their associated physical, chemical and biological properties. "Substrate" includes sediment underlying the waters. "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. "Spawning, breeding, feeding, or growth to maturity" covers all habitat types utilized by a species throughout its life cycle. Among the requirements of the program is a directive to federal action agencies to consult with NMFS regarding potential adverse effects of their actions on EFHs and respond in writing to the Service. NMFS has identified no adverse impacts to EFH at this time.

Coho salmon inhabiting the Southern Oregon – Northern California Evolutionarily Significant Unit (ESU) were listed as "threatened" by the NMFS under the Federal Endangered Species Act (FESA) on June 5, 1997. On May 5, 1999, all river reaches accessible to listed *coho* salmon between Cape Blanco in Oregon and Punta Gorda in California were designated as critical habitat area. *Coho* salmon spawn in coastal streams in the fall or winter, such as Elk Creek, with the juveniles remaining in freshwater for their first year. Juvenile *coho* returning to the open ocean to feed generally do not spend much time in the harbor area and would likely head straight out to open ocean to commence feeding. The project site is located outside of the designated critical habitat area for the species. In addition, *coho* would not be expected linger in the aquatic disposal area. If individual *coho* were to stray into the disposal area, the fish are highly mobile and could avoid any of the proposed spoils disposal activity.

On November 15, 1999, NMFS listed the *chinook* salmon as "threatened" for the southern portions of the California Coastal ESU from Redwood Creek in Humboldt County to the Russian River in Sonoma County. Similar to that for *coho* salmon, it is not

anticipated that *chinook* salmon would linger within nearshore waters of the harbor area when transiting from ocean to freshwater spawning grounds. Those individuals who might enter the dredge spoils disposal area during deposition activities are highly mobile and can avoid any of the disturbed waters.

In 1996, the National Marine Fisheries Service (NMFS) proposed to protect the steelhead of the Klamath Mountain Province (Oregon & California) ESU. In 1998, NMFS ruled that the subject ESU of steelhead did not warrant protection at that time even though agency biologists found that the fish were likely to be in danger of extinction in the future. Subsequently, on August 7, 2000, NMFS listed the species as “threatened” for the southern portions of the ESU from Redwood Creek in Humboldt County to the Gualala River in Mendocino.

No recent studies to establish presence or absence of steelhead within developed Harbor areas have been conducted. The Commission notes, however, that ideal habitat for this species does not occur in the harbor, but rather may be located to the north of the harbor in Elk Creek and outside of areas subject to dredge spoils aquatic disposal operations.

Although no impacts to Stellar Sea Lions is anticipated, harbor seals utilizing the inner harbor shoreline during pupping may be subject to disturbances associated with the disposal of dredge spoils materials at the Uplands Deposition Area. While harbor seals swim safely in the surf, they will often curiously watch humans walking on beaches. However, they are wary of people while on land, and will rush into the water if approached too closely or disturbed. In fact, they have been known to abandon favored haul-out sites or pups if disturbed too frequently. Since these seals are often born on beaches accessible to people, pups frequently are picked up by would-be rescuers who believe the pups to be abandoned. Most likely, the mother is in the water hunting. This problem has caused many seals to be unnecessarily orphaned. Although the birthing period for harbor seals occurs when spoils are not being disposed of at Whaler Island site, it is possible that harbor seal pups might be found on the inner harbor shore in proximity to the uplands disposal facility. To avoid potential abandonment of harbor seal pups, the Commission attaches Special Condition No. 2 that requires the applicant not conduct dredge disposal operation if harbor seals are found on the beach within 500 feet of the facility.

Protecting Sand Supply

With respect to sand supply impacts, the proposed use of dredged material for indirect beach nourishment will incrementally mitigate the ongoing erosion of the District's harbor beaches, helping to protect recreational use of the beach and existing structures along the beach. As conditioned, the proposed project will not have any adverse impacts on local sand supply.

Protecting Water Quality

The suitability of the proposed dredge material for disposal in any of the proposed aquatic locations has been evaluated by representatives from the USACE, the U.S. Environmental Protection Agency, and the North Coast Regional Water Quality Control Board. Advisory to these agencies are the U.S. Fish & Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish & Game. These agencies have considered the chemical and biologic test results, as well as grain size analyses, submitted by the District. These test results were reviewed according to the guidelines within the testing manual entitled "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual (the Inland Testing Manual or ITM, published in February, 1998 by the U.S. Environmental Protection Agency and the ACOE). Based on the test results contained within the documents titled "Sampling and Analysis, Crescent City Harbor District, Crescent City, California" and "Revised Tier I Evaluation and Proposed Grain Size Sampling Plan, Crescent City Harbor District, Crescent City California," as prepared by Applied Environmental Technologies, Inc, dated November 9, 1999 and May 31, 2006 & June 23, 2006, respectively, these agencies have concluded that the proposed dredge material from Dredge Areas 3, 4, and 5 are provisional suitable for aquatic disposal, contingent upon further supportive results of subsequent individualized testing conducted in July 2006. Staff Report Section IV.B.2, above, details the scope of these physical, chemical, and bioassay analyses.

Anticipated water quality impacts would occur through variables such as dissolved oxygen (DO), pH, salinity, total suspended solids (TSS), and turbidity. Turbidity near the dredging and disposal sites would increase because of additional TSS in the water column. DO levels in the water column would decrease during disposal events due to increased turbidity. While these impacts would occur, the pre-dredge operation ambient water quality condition recurs shortly after each dredging episode, and thus the impact to these water quality variables is expected to be adverse, but short-term and minor in magnitude and scope. The North Coast Regional Water Quality Control Board has issued waste discharge requirements for the project (see Exhibit No. 8). These requirements include weekly monitoring and set limits on suspended and settleable solids (100 µg/l and 1 µg/l 30-day average, respectively) in the effluent released from the Uplands Deposition Area and turbidity at the Beach and Nearshore Deposition Area (increased by no more than 20% of naturally-occurring background levels).

To ensure that the proposed method of dredge spoil disposal is consistent with Federal, State, and local regulations regarding the protection of water quality, the Commission attaches Special Condition No. 4, requiring the submission of an annual report detailing all dredging and spoils disposal activities conducted during the previous calendar year. The report would include copies of effluent and turbidity tests, and relevant review correspondence from the USACE, NCRWQCB, and the CSLC.

Therefore, as conditioned by Special Condition No. 4, the project will include measures and monitoring protocols to ensure protection of water quality and marine resources in Crescent City Harbor.

Length of Permit

Finally, with respect to the applicant's request for a permit life of 10 years, the Commission finds that a permit life of such length could result in impacts inconsistent with the resource protection policies of the Coastal Act. The areas subject to dredge and disposal operations are dynamic environments that are and will continue to be subject to a variety of natural and man-made processes. The Harbor lies at the juncture of the Pacific Ocean and the Elk Creek watershed. There is a continual and substantial exchange of energy and matter between these two areas. In addition, various land uses and development types and biotic communities interact on a daily basis in this area. There are specific future changed circumstances that may result in impacts inconsistent with the resource protection policies of the Coastal Act (i.e., (1) future listing of species that occurs within harbor and nearshore areas; (2) unforeseen rise in contaminant levels of harbor sediments from new upstream land uses or spill events; and (3) discovery of previously unknown archaeological or paleontological resources). Therefore, to enable the implementation of this permit in a manner which both acknowledges and addresses potential future changed circumstances, the Commission finds that, only as conditioned by Special Condition No. 7, which limits the authorization for development to a period of ten (10) years, can the project be found consistent with the above listed resource protection policies of the Coastal Act.

Conclusion

Thus, the Commission finds that as conditioned by Special Conditions Nos. 1-7, which ensure that impacts to all other marine resources and environmentally sensitive habitats and species are minimized, the proposed project can be found consistent with the above listed policies of the Coastal Act. Therefore, only as conditioned to mitigate and avoid impacts to marine resources and environmentally sensitive habitat areas, as detailed above, does the Commission find the proposed project to be consistent with Sections 30230 and 30233 of the Coastal Act.

3. Least Environmentally Damaging Feasible Alternative.

Coastal Act Section 30233 does not allow the filling of coastal waters if there is a feasible, less environmentally damaging alternative to the project. Alternatives to the project as proposed must be considered before a finding can be made that the proposed fill is the least environmentally damaging feasible alternative. Potentially feasible less environmentally damaging alternatives identified and considered by staff include: (a) the "no project" alternative; (b) disposal of the materials via direct beach nourishment at South Beach; (c) disposal of all dredge spoils materials at the Uplands Disposal Site; and (d) disposal at the closest federally-designated ocean disposal site (CHETCO).

No Project Alternative

Under the no project alternative, no disposal of dredged spoils would occur. Without a site to dispose of dredge material, dredging within Crescent City Harbor would not be pursued once the limited capacity of the Uplands Deposition Area disposal facility was filled. Without dredging, boat slips, mooring berths, and turning areas within the harbor would become silted-in and unusable. Silting of the harbor's inner channel and docking areas would decrease the usefulness of the harbor for commercial fishing, recreation oriented boating, and other coastal-dependent uses. Accordingly, the no project alternative would have an adverse impact upon uses dependent upon coastal harbor waters. In addition, without dredging, materials appropriate for return into the littoral system would be precluded. This action would incrementally decrease the amount of material entering longshore transport and deprive area beaches from being nourished with suitable beach-quality sand materials.

Direct Beach Nourishment

Under this option, materials from Dredge Area No. 3 would be applied directly onto the shoreline at South Beach. A temporary pipeline would be used to convey materials from the dredge vessel to the beach where they would be deposited above the Mean High Tide Line.

The placement of additional sand materials along South Beach could result in significant adverse impacts to both terrestrial and nearshore habitat from encroachment into the adjacent coastal strand vegetation and burial of intertidal razor clam beds as the excess dredge spoils are subsequently mobilized by winds and storm surges.

The significant adverse impacts to razor clam beds were noted as a concern by the California Department of Fish and Game during the term of the previous coastal development permit. Accordingly, as the direct beach nourishment project alternative would have a significant adverse impact upon coastal resources that would not result from the proposed project, direct beach nourishment is not a less environmentally damaging feasible alternative.

Exclusive Upland Disposal

The third option examined involves the placing of all dredge spoils at the District's Uplands Disposal Site. Exclusive disposal at the upland facility would result in suitable beach-quality sand materials being diverted from the shoreline sand supply and deprive area beaches from being nourished with such materials. In addition, with additional dredge material entering the upland disposal site, the facility's capacity would be reached more quickly, necessitating the development of new disposal facilities, which, depending upon their location, could have impacts to other coastal resource areas. Therefore, this alternative would have greater significant adverse impacts than the proposed project and is, therefore, not a less environmentally damaging feasible alternative.

Ocean Disposal at the Closest Federally Designated Ocean Disposal Site

A final project alternative involves disposal of dredged materials suitable for unconfined aquatic disposal at the closest federally-designated ocean disposal site. Historically, the USACE and the District have used “SF-1,” located approximately 1.25 miles southwest of the harbor. However the site’s availability as an approved disposal site under the Marine Protection Research and Sanctuaries Act of 1972 (MPRSA) lapsed on January 1, 1997; therefore this site is not usable under Section 102 of the MPRSA. It could be used under Section 103 of the MPRSA; however the Corps has not prepared the necessary analysis that would need to accompany an application for a “103” disposal request. Therefore, this site is not a feasible alternative at this time.

The next closest federally-designated ocean disposal facility is the Chetco Ocean Disposal Site (CHETCO). CHETCO encompasses an approximate .09 square nautical mile area and is intended for “dredged material determined to be suitable for unconfined disposal from the Chetco Estuary and River and adjacent areas.” The facility is located approximately 18 nautical miles north-northwest of the Crescent City Harbor. Given the associated mobilization and transport costs, estimated in 2000 at \$100,000 and \$12.00/cubic yard, respectively, it has not been determined if this facility is a feasible alternative for the District. In addition, this alternative would also result in suitable beach-quality sand materials being diverted from the shoreline sand supply and depriving area beaches from being nourished with such materials. Accordingly, dredge spoils at the closest federally-designated ocean facility is not a less environmentally damaging feasible alternative.

Conclusion

Because there are no feasible less environmentally damaging alternatives available for disposing of dredge materials to maintain adequate depths within the Harbor, the Commission finds that the proposed disposal project is the least environmentally damaging alternative.

4. Maintenance of the Marine Environment.

The fourth test set forth by Section 30231 and 30233 is that discusses how the project is whether the proposed dredging or filling project in coastal waters will maintain and, where feasible, enhance the biological productivity and functional capacity of the habitat. The project has been conditioned to mitigate any impacts to the marine environment. Conditions of approval will ensure that the marine environment will be maintained. Further, as the project involves an indirect beach nourishment component, returning dredged materials into localized littoral transport will help maintain South Beach whose natural sand supply was affected by construction of the harbor. Similarly, this aspect of the project will contribute to maintaining biological productivity and functional capacity by helping to offset sand supply disruptions caused by the presence of harbor improvements.

5. Conclusion.

The proposed project represents a portion of a comprehensive program for operations and maintenance activities necessary to maintain and improve navigation channels and berthing areas for recreational boating and commercial fishing, a recognized use under Coastal Act Section 30233(a)(2). A nearshore disposal site has been proposed established for indirect beach replenishment utilizing only physically and chemically compatible materials. The USACE, Regional Water Quality Control Board and the State Lands Commission have conceptually approved these dredge disposal sites. Because there are no feasible less environmentally damaging alternatives available for disposing of dredge materials to maintain adequate depths within the Harbor; because feasible mitigation measures are provided through Special Conditions Nos. 1-6 to minimize adverse environmental effects, and because suitable sediments will be conveyed to appropriate beach replenishment sites to maintain the marine environment and its supply of sand, the Commission finds that the project is consistent with all applicable tests of Sections 30230, 30231, and 30233(a).

E. SAND SUPPLY

Section 30233(b) of the Coastal Act provides:

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

This section of the Coastal Act encourages placement of sandy dredge spoils in a manner that will ensure their return to the longshore transport system, when possible. The applicant is proposing to use all beach suitable dredge material for beach nourishment purposes. In order to ensure that the materials proposed for beach nourishment are suitable for such purposes, the applicant has had sediment testing performed to evaluate the physical characteristics of the materials (see Exhibit No. 4 and Staff Report Section IV.B.2, above). The Commission is accepting the chemical testing and analysis completed to date for the proposed project. In this proposal, given the absence of industrial development in the area, the representative analysis is being accepted as sufficient without further investigation being required during the term of the permit. It is expected that the source of any additional pollutants, if any, would be from non-point sources and such urban runoff constituents would not be expected to significantly change over the course of the ten year permit.

Furthermore, to ensure that only beach quality materials are used to nourish the beaches, the Commission attaches Special Condition No. 3(A)(1) that requires that material utilized for beach nourishment shall originate solely from Dredge Areas 3, 4, and 5 determined to have a sand content that is equal to or greater than 80% sand and

acceptable levels of total organic carbon as approved by the USACE and the USEPA. One of the concerns of any dredging project and spoils disposal is the loss of sand to the particular littoral cell, and the possible resulting erosion up- or down-coast. The Commission has expressed concerns over past Corps disposal at the formerly USEPA-certified "SF-1" Ocean Disposal Site, because it removes material from the littoral system, and the Commission has in fact encouraged such solutions as are currently being proposed by the District to dispose of suitable material at Whaler Island site. With the project constraints proposed by the applicant, based on the grain size and other test results to only use the Inner-Harbor Channel and Outer Harbor mooring areas (Dredge Areas 3, 4, and 5) materials for beach replenishment (because the other Inner Harbor materials are too silty and/or contaminated), the Commission finds that the material is suitable for beach replenishment and that the project is consistent with the sand supply policy Section 30233(b) of the Coastal Act.

F. VISUAL RESOURCES

Section 30251 of the Coastal Act requires that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Furthermore, Section 30240(b) of the Coastal Act states that development in areas adjacent to parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those recreation areas.

Dredge spoils disposal operations present a temporary intrusion into visual resource areas and occur generally within the harbor itself or adjacent areas along the Crescent City Harbor Beach or in proximity to the Whaler Island breakwater. The harbor is generally visible from numerous public viewing areas. These include the harbor itself, the Highway 101 Crescent City Vista Point, Crescent and South Beaches to the south, the Highway 101 Elk Creek bridge and Beach Front Park to the north, the Battery Point Lighthouse to the northwest, and from the open ocean to the southwest. In terms of scenic areas of importance, the City of Crescent City LCP designates the southern Highway 101 entry into the city as its primary visual resource area.

The project elements that would occur within the public viewshed include: (1) the floating dredge itself, along with any floating sections of pipe; and (2) sections of flexible pipe placed on the beach to transport sediment for indirect beach replenishment or into the upland sedimentation pond. However, views of these facilities would not result in a significant impairment of scenic resources, for the following reasons: (1) the presence of the dredge would simply blend in with other vessels already visible and should not be counted as an adverse impact, and (2) the surface-lain flexible piping for transporting

dredge spoils slurry would be similarly temporary and vary in locale, depending on the particular disposal destination of the dredged materials.

Therefore, given its temporary and transient nature, and the fact that the proposed dredging and disposal activity would not significantly alter scenic public views at Crescent City Harbor, the Commission finds that this project is consistent with Sections 30251 and 30240(b) of the Coastal Act.

G. PUBLIC RECREATION AND ACCESS

Coastal Act Section 30604(c) requires that every coastal development permit issued for new development between the nearest public road and the sea “shall include a specific finding that the development is in conformity with the public access and recreation policies of [Coastal Act] Chapter 3.” The proposed project is located seaward of the first through public road.

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. In particular:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. [PRC §30210]

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. [PRC §30211]

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects... [PRC §30212(a)]

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. [PRC §30213]

The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case... [PRC §30214 (a)]

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area. [PRC § 30221]

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, [...] providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land. [PRC §30224]

Likewise, Coastal Act Section 30240 (b) also requires that development not interfere with recreational areas and states:

Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Crescent City Harbor provides public access and recreational opportunities of regional and Statewide significance. These opportunities include boat launching, berthing for commercial vessels and recreational boats, boat repair areas, marine-related retail/commercial businesses, sailing programs, yacht club and boat sales. The District's maintenance dredging project, including the proposed disposal of resulting spoils materials, would strongly benefit public access and recreation, in two ways: (1) by restoring and maintaining adequate water depths in the harbor's navigation channels and berthing areas, and (2) by directing suitable sandy dredge spoils onto nearby nearshore areas for indirect beach replenishment.

Adverse impacts to public access are possible, but would be of limited duration. The flexible above-ground pipeline used to transport dredge spoils to designated disposal sites create, from time to time as they are moved about, a modest impediment to pedestrian travel along or to the beach. This pipeline is twelve inches in diameter, and may need to be traversed by persons walking across the Whaler Island breakwater's causeway or the inner harbor beach. Placement of this pipeline would be managed so that it would not form an unintentional continuous barrier, particularly with respect to the less-nimble beach visitors. In addition, the pipeline would be in any given location for only a short duration.

The District's dredging maintenance program is necessary to protect Coastal Act priority dependent uses. Although the transport of dredge materials to the disposal sites may potentially impact public access on portions of the Whaler Island causeway and Crescent City Harbor beach areas, the impact would not be significant and the dredge program is essential to allow for commercial and recreational boating access. To ensure that impacts

to public access and recreation are minimized, the Commission attaches Special Condition Nos. 5 and 6. These conditions set specific restrictions on aquatic dredge disposal operations to prevent disruption of significant coastal recreational use events, ensure that the availability of existing public accessways are not diminished, and avert any possible continuous barrier effects due to the presence of the slurry pipeline at either the aquatic and upland disposal sites are minimized.

Thus, the Commission concludes that the project as conditioned would protect boating and beach recreational opportunities consistent with Coastal Act Sections 30210, 30213, 30220, 30224, 30234 and 30234.5. Therefore, the Commission finds that, as conditioned by Special Condition Nos. 5 and 6 which mitigate for potential beach access impacts, the proposed project would preserve public access and recreational opportunities and, is consistent with the above-cited public access and recreational policies of the Coastal Act.

H. STATE WATERS

Portions of the project site are located in areas that were formerly State-owned waters, but remain otherwise subject to the public trust. On July 13, 1963, by Senate Bill No. 1383, the State of California transferred all rights, title, and interest to portions of the submerged and tidelands within Crescent City Harbor and surrounding ocean waters to the District. In granting these ownership rights, the State Lands Commission (SLC) has retained authority over these former sovereign lands through both exempted and reserved rights to all deposits of minerals, and its public trust responsibilities under the state Constitution. Granted lands are monitored by the SLC to ensure compliance with the terms of the issued statutory grant. These grants encourage development of tidelands consistent with the public trust, while requiring grantees to re-invest revenues produced from the lands back into the lands where they are generated. Under this authority, on June 27, 2000, the SLC approved Dredging and Disposal Lease No. PRC 5202.9, authorizing the District to conduct the subject harbor maintenance program for an effective ten year period from August 1, 2000 through July 31, 2010.

To assure consistency with the SLC's authorization for the District to utilize state sovereign and public trust lands for maintenance dredging activities, the Commission attaches Special Condition No. 7. Special Condition No. 7 requires that upon the expiration, re-issuance, or extension of any lease granted by the SLC for the subject dredging operations, the Executive Director review the continued conformity of Coastal Development Permit No. 1-05-058 as may be affected by changes in the conditions or terms of any such renewed or extended lease.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with

any applicable requirement of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on conformity with the Chapter 3 policies of the Coastal Act at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

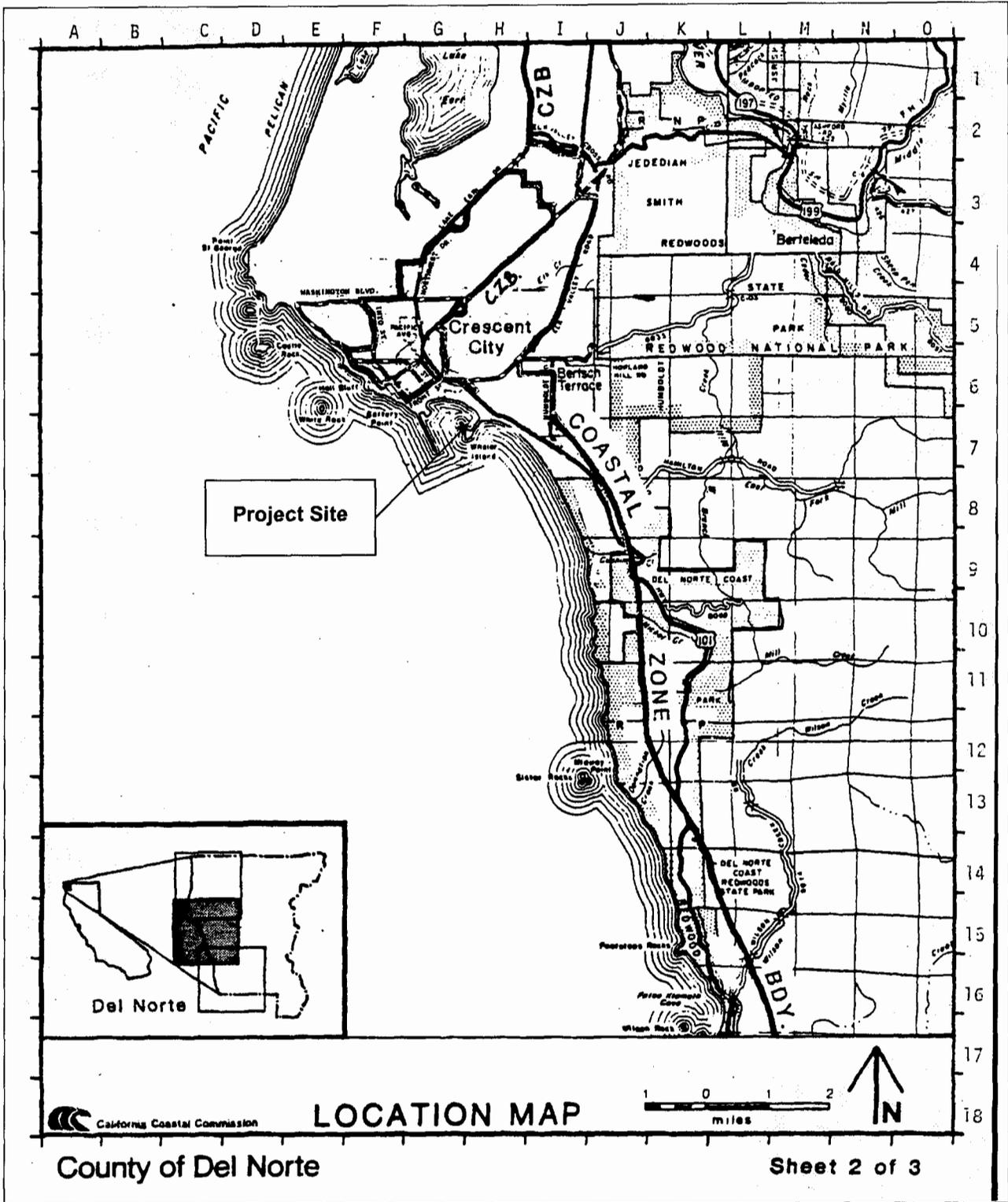
III. EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Oblique Aerial Photo, Crescent City Harbor
4. Proposed Dredging and Disposal Operational Areas
5. Approved Sampling Assessment Plan and Addendum
6. California State Lands Commission *Dredging and Disposal Lease No. PRC 5202.9*, approved June 27, 2000, expires July 31, 2010
7. U.S. Army Corps of Engineers *Individual Permit No. 24211N*, issued June 14, 2001, expires December 31, 2011
8. North Coast Regional Water Quality Control Board *Waste Discharge Requirements Order No. R1-2000-59 for Crescent City Harbor District Maintenance Dredging*, adopted August 25, 2000
9. Review Agency Correspondence

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director of the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



California Coastal Commission

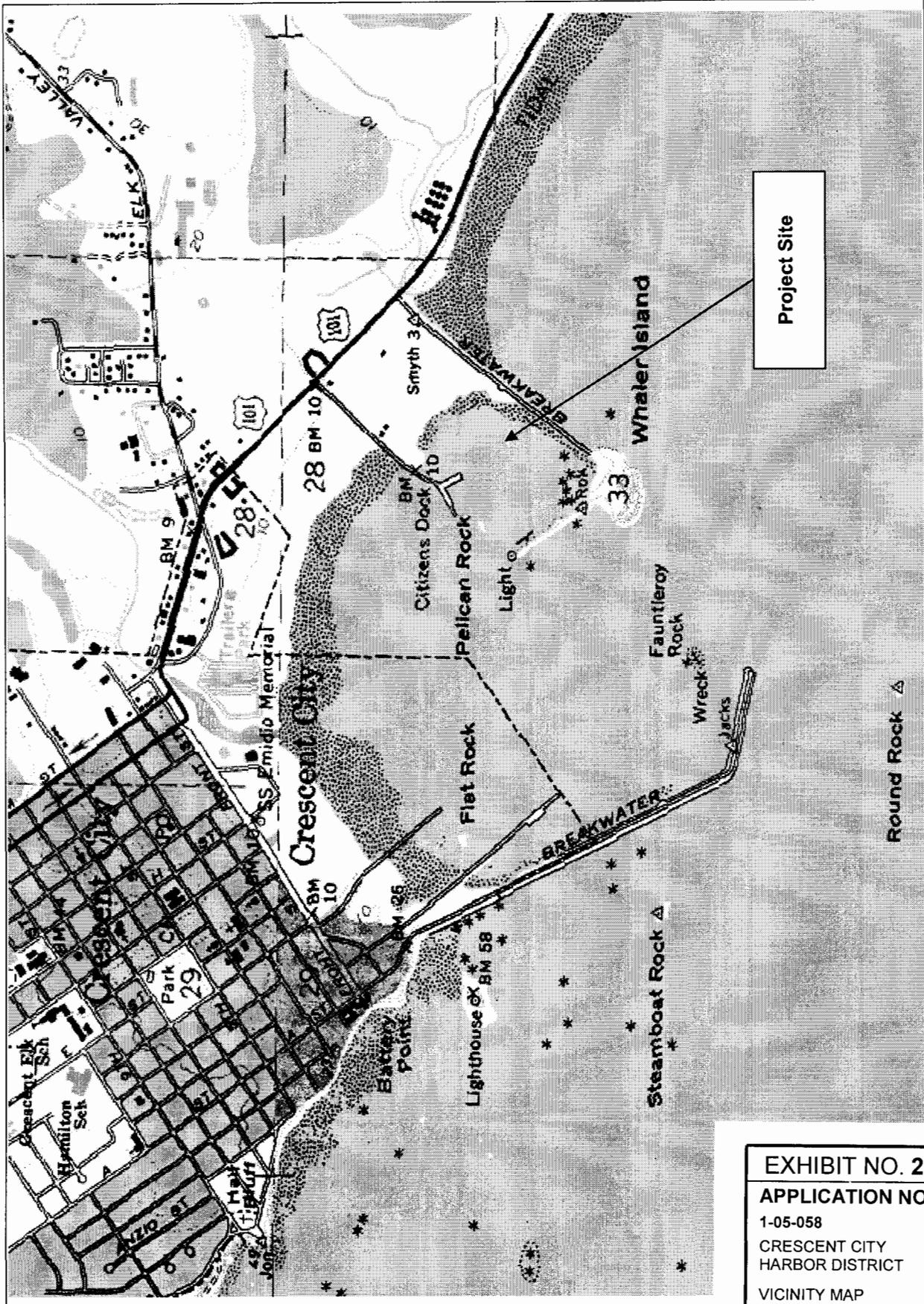
LOCATION MAP



County of Del Norte

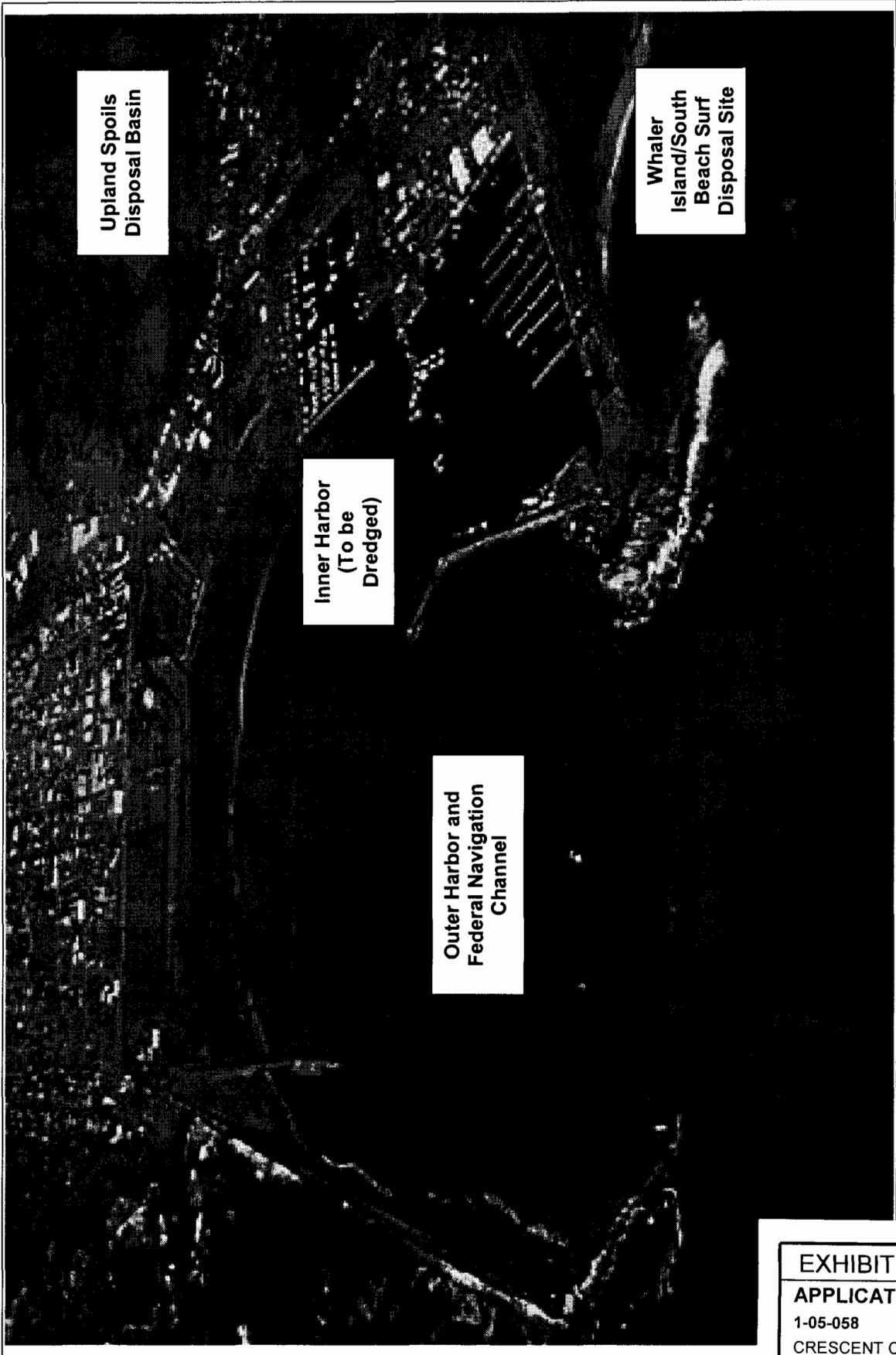
Sheet 2 of 3

EXHIBIT NO. 1
APPLICATION NO.
 1-05-058
 CRESCENT CITY
 HARBOR DISTRICT
 REGIONAL LOCATION MAP



Project Site

EXHIBIT NO. 2
APPLICATION NO.
 1-05-058
 CRESCENT CITY
 HARBOR DISTRICT
 VICINITY MAP



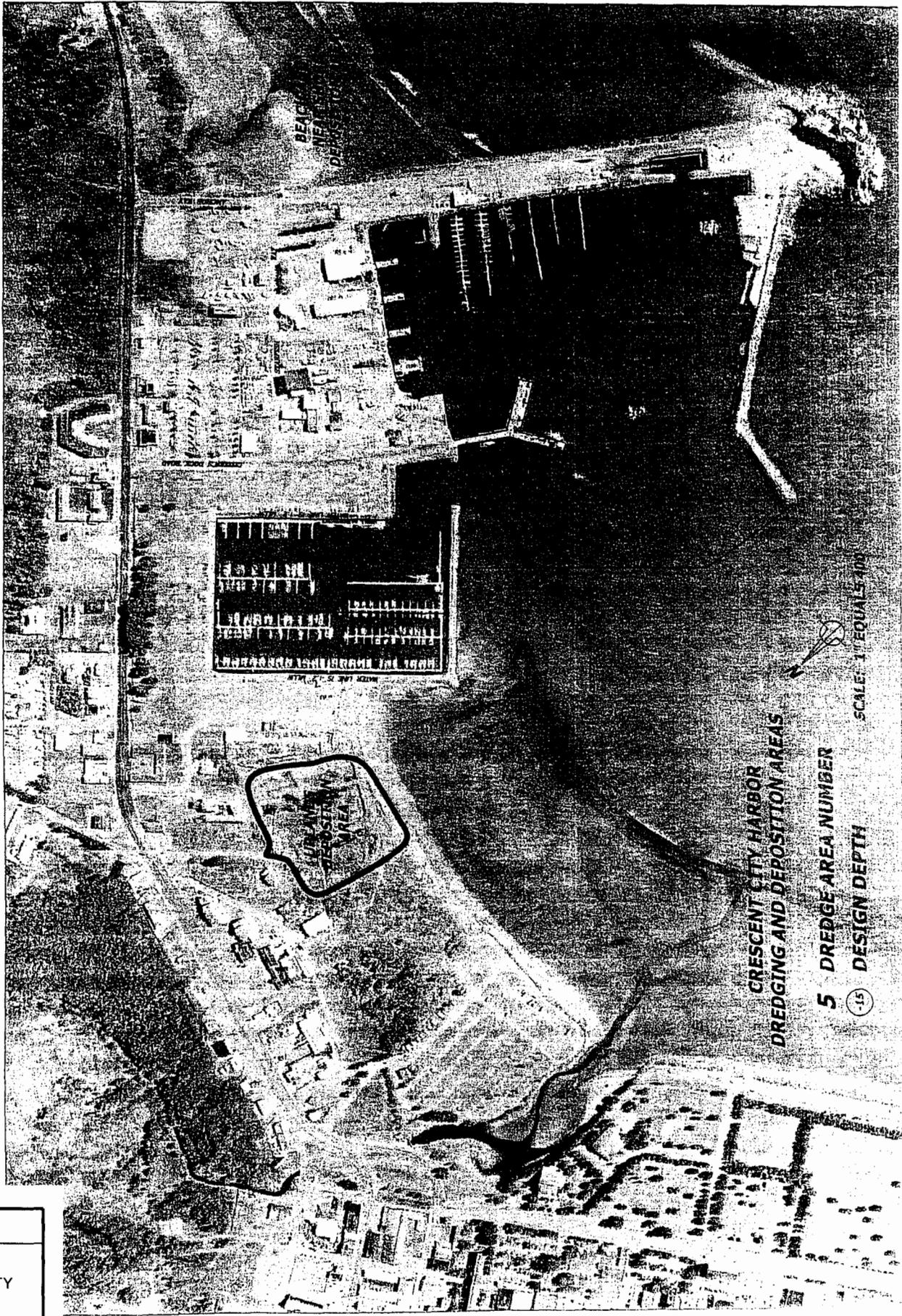
Upland Spoils
Disposal Basin

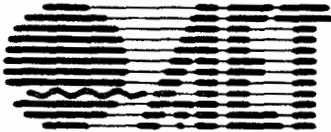
Whaler
Island/South
Beach Surf
Disposal Site

Inner Harbor
(To be
Dredged)

Outer Harbor and
Federal Navigation
Channel

EXHIBIT NO. 3
APPLICATION NO.
1-05-058
CRESCENT CITY
HARBOR DISTRICT
OBLIQUE AERIAL PHOTO,
CRESCENT CITY HARBOR





APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
4561 Market St., Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

March 24, 2006
Ref. No. 0839-010

U. S. Army Corps of Engineers
San Francisco District Regulatory Branch
333 Market Street, room 812
San Francisco, CA 94105-2197
Attention: Clyde Davis

Environmental Protection Agency
Region 9 (WTR-8)
75 Hawthorne Street
San Francisco, CA 94105
Attention: Mr. Brian D. Ross

TIER I EVALUATION AND PROPOSED GRAIN SIZE SAMPLING PLAN CRESCENT CITY HARBOR DISTRICT, CRESCENT CITY, CALIFORNIA

INTRODUCTION AND SUMMARY

The Crescent City Harbor requires periodic maintenance dredging to keep navigational channels at their design depths. The Crescent City Harbor District is proposing to conduct dredging in the Crescent City Harbor (Plate 1). The dredging will be conducted under the requirements and conditions of the U. S. Army Corps of Engineers (ACOE), Department of the Army Permit 24221N.

Numerous investigations have been conducted on the sediments of the Crescent City Harbor. Based on the findings of the previous sediment sampling investigations, it is reasonable to suggest that no further chemical testing be required because of the similarity of the previous testing results and that no significant concentrations of chemicals of concern were identified. Table 1 shows the results of the testing that are available. Grain sizes were consistent as were total solids. Pesticides and PCBs were not detected or near the lowest detection limit. PAHs were either not detected or at minor concentrations. Metals were at expected background concentrations.

The previous sampling results are summarized in Table 1. A discussion and evaluation of previous conditions and recommended grain size sampling plan are provided below.

EXHIBIT NO. 5
APPLICATION NO. 1-05-058 - CRESCENT CITY HARBOR DISTRICT
APPROVED SAMPLING ASSESSMENT PLAN AND ADDENDUM (1 of 36)

PREVIOUS PHYSICAL AND CHEMICAL INVESTIGATIONS

LACO, 1996

In September 1996, LACO Associates conducted a geotechnical investigation and seafloor characterization study (physical and chemical characteristics) for the U.S. Army Corps of Engineers in the channel to the inner boat basin in the Crescent City Harbor in Crescent City, California (Plate 2). The investigation was conducted in the area of the then proposed and now approved federal channel project.

As part of the physical and chemical characteristic study, samples of the harbor bottom surface sediments were collected. These samples were analyzed for grain size, total solids, total organic carbon, metals, chlorinated pesticides/PCBs, PAHs, and butyltins. The analyses for metals, chlorinated pesticides/PCBs, PAHs and butyltins were also analyzed as an elutriate (testing water surrounding the sediment).

Five samples were collected in the federal channel project area (Plate 2). Four samples were analyzed for grain size, total solids and total organic carbon. Grain size consisting of sand and gravels ranged from 47 to 71 percent (see Table 1 and 2). The greatest percentage was measured at sample location CC4. Sample location CC5 was not analyzed.

Percent solids ranged from 43 to 57 percent (Table 1). Sample location CC4 contained the least percentage of total solids and composite sample location CC1/CC3 was measured at 57 percent in 2 replicates. Total organic carbon ranged from 4.8 percent to 12.8 percent (Table 1), with sample location CC4 measuring the greatest concentration.

The concentrations of metals in the sediment samples and the elutriate samples did not contain elevated concentrations that would be considered a significant finding. The concentrations of chlorinated pesticides and PCBs in sediment and elutriate samples were insignificant (i.e. less than 10 parts per billion). No significant concentrations were measured. Concentrations of PAHs in sediment and elutriate samples were less than 1 part per million and not considered significant. The total butyltins were measured at less than 20 parts per billion (ng/g).

MEC 1998

In August 1998, MEC Analytical Systems, Inc. (MEC) conducted chemical, and physical analysis of sediment samples collected from the Crescent City Entrance Channel for the federal channel project (see Plate 2). The analysis was conducted to support use of the dredge material for beach nourishment in the immediate vicinity of Crescent City Harbor. Two sets of composite samples were analyzed.

2 of 36

Grain size results for the channel showed that approximately 34 to 72 percent of the sample material were greater than 62.5 μm (sand and gravel) (Table 2). Total organic carbon ranged from approximately 1.2 percent to 8.7 percent.

All metal concentrations were relatively low. No detectable concentrations of the organotins were measured in the composite samples.

Percent solids ranged from 33.9 to 75 percent (Table 1). Total sulfides ranged from 27 to 59 mg/kg. Oil and Grease concentrations ranged from 12 to 72 mg/kg. Volatile solids ranged from 2.4 to 7.3 percent (see Table 1).

No detectable concentrations of pesticides or PCBs were measured in the composite samples (Table 1). Minor concentrations of PAHs were measured in the inner (4 to 61 $\mu\text{g}/\text{kg}$) (Table 1).

AET. November 9, 1999

In August 1999, AET conducted sampling and analysis for dredging of the Crescent City Harbor. During that assessment 4 areas were sampled (Areas 2 through 5, Plate 1). That assessment included the collection of sediment cores from 16 locations in the Crescent City Harbor. Four samples for compositing were collected from each area.

The raw data from the individual sample locations showed the sediments investigated in Area 2 consisted of silts and fine sands with a high percentage (17.32%) of wood materials present (Table 3). In Area 3 the sediments were generally fine sand with little organic material and shell hash. Area 4 consisted of silty sand with a small percentage (6.5%) wood material. Area 5 consisted generally of silty sand with abundant shell hash.

The percent of the individual grain sizes (i.e., gravel, sand, silt and clay) of the Crescent City Harbor are shown on Tables 2 and 3. The percentages retained on a 200 sieve were approximately 52.4% for Area 2, 88.9% for Area 3, 51.7% for Area 4, and 56.6% for Area 5. In addition, outside of the harbor to the southeast, grain sizes were measured at an average of 98.5% (see Table 3).

The grain size measurements in Areas 2, 4 and 5 showed less than 60 percent sand. In Area 3 however, the grain size measurements showed that almost 90 percent of the material was sand and would be suitable for beach replenishment. The sediments of the harbor contained wood materials, expected to have originated from lumbering activities in the area of the harbor. The presence of the wood material, in our opinion, did not preclude the use of the sediments in other marine environments.

The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). All samples contained minor concentrations of some of the constituents (see Table 4 for concentrations). Sample AET-3 contained only one PAH constituent of 21 $\mu\text{g}/\text{kg}$ (parts per billion)

3936

Benzo(k)fluoranthene. The concentrations were considered insignificant and not deemed an environmental concern.

Total recoverable petroleum hydrocarbons (TRPH), organochlorine pesticides, and polychlorinated biphenyls were not detected in any samples (see Table 5). Total organic carbon was measured at 5.17 to 6.09 percent in the samples (see Table 5). The percent solids ranged from 52.4% in Area 2 to 59.1% in Area 3 (see Table 5).

With the exception of Sample AET-2, no detectable concentrations of organotin were measured (see Table 6). In Area 2 tributyltin was measured at a concentration of 2 $\mu\text{g}/\text{kg}$ (see Table 6). No criteria has been set by the EPA, but they have suggested that a permissible ambient goal of 1.4 $\mu\text{g}/\text{l}$ in water be set based on health effects. The soluble concentration detected is expected to be below the ambient goal suggested. No significant environmental concern, in our opinion, was present.

Metals analyses were conducted on the sediment samples. No silver concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 7. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which identify the material as hazardous (see Table 7). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 7). None of the concentrations detected exceed Title 22 standards (see Table 7). It was our opinion that no impacts due to metals would occur from deposition of dredged materials from the harbor to other areas.

Based on the chemical analyses conducted and the results, it was our opinion that the deposition location of the sediments of the Crescent City Harbor would not be a factor of the chemical compounds measured in the sediments. No significant concerns were expected from the chemical compounds in the sediments.

Bioassay testing was conducted on the sediment. The suspended-particulate-phase testing showed that with a 1 or 10 % solution, the proportion of surviving embryos that develop normally in the test chambers with normal development, ranged from 70.2 % (10% solution in AET-2) to 83.4% (1% solution for AET-5) (Table 8). AET-3 showed the least impact to surviving embryos with solutions up to 100% (Table 8).

In the 2 solid-phase tests, there were no statistically significant effects in the *N. arenaceodentata* test, and in the *R. abronius* test, with the exception of Area 2, which failed with a percent survival of 63% (See Table 9). This survival rate has a greater than 20% difference with the control group (Table 9). Area 5 had a survival rate of 73% which is statistically less than the control group's 92.5% and the reference area's 87.5% (see Table 9).

4436

AET. 2002 (Report dated January 30, 2003)

In December 2002, AET conducted sampling and analysis for dredging of the Crescent City Harbor. During that assessment 5 areas were sampled (Plate 1). That assessment included the collection of sediment cores from 20 locations in the Crescent City Harbor. Four samples for compositing were collected from each area.

The sediments investigated in Area 1 consisted of dark grey to black silty sand with approximately 5 percent shell hash and wood. The sediments investigated in Area 2 consisted of black fine sand with shell hash and wood materials. In Area 3 the sediments were generally black fine to medium grained sand with little organic material and shell hash. Area 4 consisted of silty sand with a small percentage (10 to 15%) wood material. Area 5 consisted generally of silty clay with fine sand at depths greater than 3 feet below bottom surface.

The percent of the individual grain sizes (i.e., gravel, sand, silt and clay) of the Crescent City Harbor are shown on Tables 2 and 10. The percentages retained on a 200 sieve are 70% for Area 1, 77% for Area 2, 76% for Area 3, 79% for Area 4, and 46% for Area 5.

No Polynuclear Aromatic Hydrocarbons (PAHs), PCBs, Phenols, Phthalates or volatile organics were measured in any samples (Table 11).

Total volatile organics were measured in Areas 3 through 5. The concentrations were 21 to 22 percent of the sediment sample. Total sulfides were measured in Areas 3 through 5. Concentrations ranged from 290 (Area 4) to 620 (Area 5).

Total recoverable petroleum hydrocarbons (TRPH) ranged from 18 to 82 mg/kg (see Table 11). Organochlorine pesticides were only detected in Sample Area 1. The compound DDE was detected at 5.9 mg/kg (see Table 11). Total organic carbon was measured at 0.82 percent (Area 1) to 2.32 percent (Area 4) in the samples (see Table 11).

With the exception of Samples Area 1 and Area 2, no detectable concentrations of organotin were measured (see Table 12). In Areas 1 and 2, tributyltin was measured at a concentration of 14.5 to 27.7 $\mu\text{g}/\text{kg}$ (see Table 12).

Metals analyses were conducted on the sediment samples. No silver concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 13. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which identify the material as hazardous (see Table 13). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 13).

5 of 36

EVALUATION

Physical Parameters

The grain size measurements in Areas 1 through 4, sampled between 1996 and 2002, in the harbor ranged from 58 to 90 percent sand (Table 2). In Area 5 the grain size measurements ranged from 34 to 58 percent sand (Table 2). The sediments of the harbor contained low quantities of wood materials, expected to have originated from lumbering activities in the area of the harbor. The wood materials identified in the 2002 survey were less than measured during the 1999 survey. The change may be a factor of the location of the samples or the physical conditions of the harbor.

Total solids were similar during the surveys (Table 1). Total volatile solids were dissimilar between the MEC 1998 and the AET 2002 surveys. This may be due to the conditions of the harbor or that AET sampled a higher volume of wood materials that volatilized during testing. Total volatile solids were measured ranging from 21 to 22 percent in the 2002 samples. This component of the sediment represents the organic materials that are extracted (incinerated) with a temperature of 550 degrees C. Materials, such as the wood products and other organic components were removed. The concentrations, 21 to 22 percent, are not considered significant.

Chemical Measurements

No detectable concentrations of Volatile Organics, Phenols, Phthalates, or PCBs were measured in the samples collected. PAHs were not detected in 2002 but were detected at minor concentrations in 1998 and 1999 (see Tables 1, 4 and 11).

The total organic carbon (TOC) components of the samples are comparable for all areas samples and are not considered significant. TOC ranged from 1.2 to 12.8 percent (see Table 1).

Organotin (as Tributyltin) was identified in the 1999 and 2002 investigations. In 1999, Tributyltin was measured at 2 $\mu\text{g}/\text{kg}$ in Area 2 (see Table 6). In 2002 the samples from Areas 1 and 2 had concentrations of 14.5 and 27.7 $\mu\text{g}/\text{kg}$, respectfully (Table 12). No criteria has been set by the EPA, but they have suggested that a permissible ambient goal of 1.4 $\mu\text{g}/\text{l}$ in water be set based on health effects. The soluble concentration detected is expected to be below the ambient goal suggested. No significant environmental concern, in our opinion, is present.

Various metals were detected in the harbor sediments in all investigations. None of the concentrations detected exceed Title 22 standards. It is our opinion that no impacts due to metals would occur from deposition of dredged materials from the harbor to other areas.

Based on the chemical analyses conducted and the results, it is our opinion that the deposition location of the sediments of the Crescent City Harbor would not be a factor of the chemical compounds measured in the sediments. No significant concerns are expected from the chemical compounds in the sediments.

6 of 36

RECOMMENDATIONS

It is the conclusion of this evaluation, based on the physical and chemical analyses, no further chemical sampling is necessary. Grain size sampling is suggested because of potential changes in the environment since the last sampling period and because dredge disposal options include near shore beach replenishment. The recommended grain-size sampling plan is provided below.

SAMPLING PLAN

Task 1: Sediment Collection

The proposed sampling plan includes the collection of sediment cores from 20 locations in the Crescent City Harbor shown on Plate 1. The cores will be collected using a vibracore suspended from a work barge.

Four (4) discrete samples will be removed from each area to be investigated (see Plate 1). These samples will be composited into a single sample for analysis. The study area has been divided into 5 areas, previously studied, to reduce the investigation area to manageable components that can be characterized.

The sample collected from each sample location within a particular sampling area will be extruded from the liner, logged and representative components placed in a bucket for mixing. The multiple samples collected from each sampling area will be mixed to get a representative sample. Grain size samples will be placed in a plastic bag and frozen for transport to the laboratory for processing.

Dredging in the harbor has been proposed for various design depths. The depth of each area with the potential over dredge depth is shown below:

<u>Area</u>	<u>Design Depth</u>	<u>Overdredge Depth</u>
1	-15 feet MLLW	-17 feet MLLW
2	-15 feet MLLW	-17 feet MLLW
3	-12&-15 feet MLLW	-14&-17 feet MLLW
4	-15 feet MLLW	-17 feet MLLW
5	-10&-15 feet MLLW	-12&-17 feet MLLW

The method of sample collection will be with the use of a vibracore. The vibracore system is expected to be suitable to penetrate the harbor bottom, because it has been used by the Army Corps of Engineers and AET to sample sediments within the harbor during previous investigations. The depth of the samples within the individual areas will be to approximately -16 to -18 feet MLLW.

The volume of material proposed for possible dredging and over dredging is shown below.

7 of 36

<u>Area</u>	<u>Design Depth</u>	<u>Overdredge Depth</u>
1	36,233 yd ³	51,304 yd ³
2	67,739 yd ³	96,819 yd ³
3	91,084 yd ³	136,739 yd ³
4	89,647 yd ³	125,745 yd ³
5	69,621 yd ³	115,720 yd ³
Total	354,324 yd ³	526,327 yd ³

The cumulative yardage for the design depth and over dredge depth is 354,324 and 526,327 yd³, respectively. The previous sampling that had been conducted in the inner harbor waters has indicated that over dredging may not be feasible because rocky substrate is present throughout the harbor. Therefore, it is expected that dredging will occur only to the design depth. The Harbor District owns a 12-inch hydraulic dredge that is used to remove localized shoal conditions within the harbor. As a consequence, the dredging is not expected to exceed 100,000 yd³ over a 3-year period.

Task 3: Report on Analytical Results

The report will consist of logs of individual cores, a brief discussion of field, and a summary of the results of the grain size testing. AET will review the results of the testing and prepare a report detailing sampling methodology, chemical analysis results, and where practical, conclusions will be made on the suitability of the sediments for disposal.

SCHEDULE

Following approval of the workplan by the Corps of Engineers, the sediment collection can be scheduled. One day will be required to collect the samples. A report containing the results of the testing would be submitted to the Corps of Engineers within 4 weeks following completion of the field investigation. Should you have any questions or comments concerning this plan, please contact us.

LIMITATIONS

This evaluation has been prepared as a Tier I assessment of sediment conditions in Crescent City Harbor and a grain-size sampling plan. In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the standard of practice measured on the date of this report and in the locale of the project site for similar type studies. Applied Environmental Technologies, Inc., makes no warranty, expressed or implied, in fact or by law, whether of merchantability, fitness for any particular purpose, or otherwise, concerning any of the materials or "services" furnished by Applied Environmental Technologies, Inc., to the client.

8 of 36

U. S. Army Corps of Engineers, Clyde Davis
Environmental Protection Agency, Brian D. Ross

March 24, 2006
Page 9

The results of this report have been developed based on a limited number of sediment sample analyses from discrete locations in the Crescent City Harbor from 4 sampling episodes. It should be recognized that sediment conditions could vary laterally and with depth below a given location.

Should you have any questions or comments concerning this report, please contact us.

Very truly yours,
Applied Environmental
Technologies, Inc.

Harry C. Finney, REA
Senior Marine Ecologist

HCF/wp

cc: Mr. Richard Parsons
Mr. Richard Young, Crescent City Harbor

9 2 36

Plates

10 of 36

**DREDGING PLAN
CRESCENT CITY HARBOR
CRESCENT CITY, CALIFORNIA**

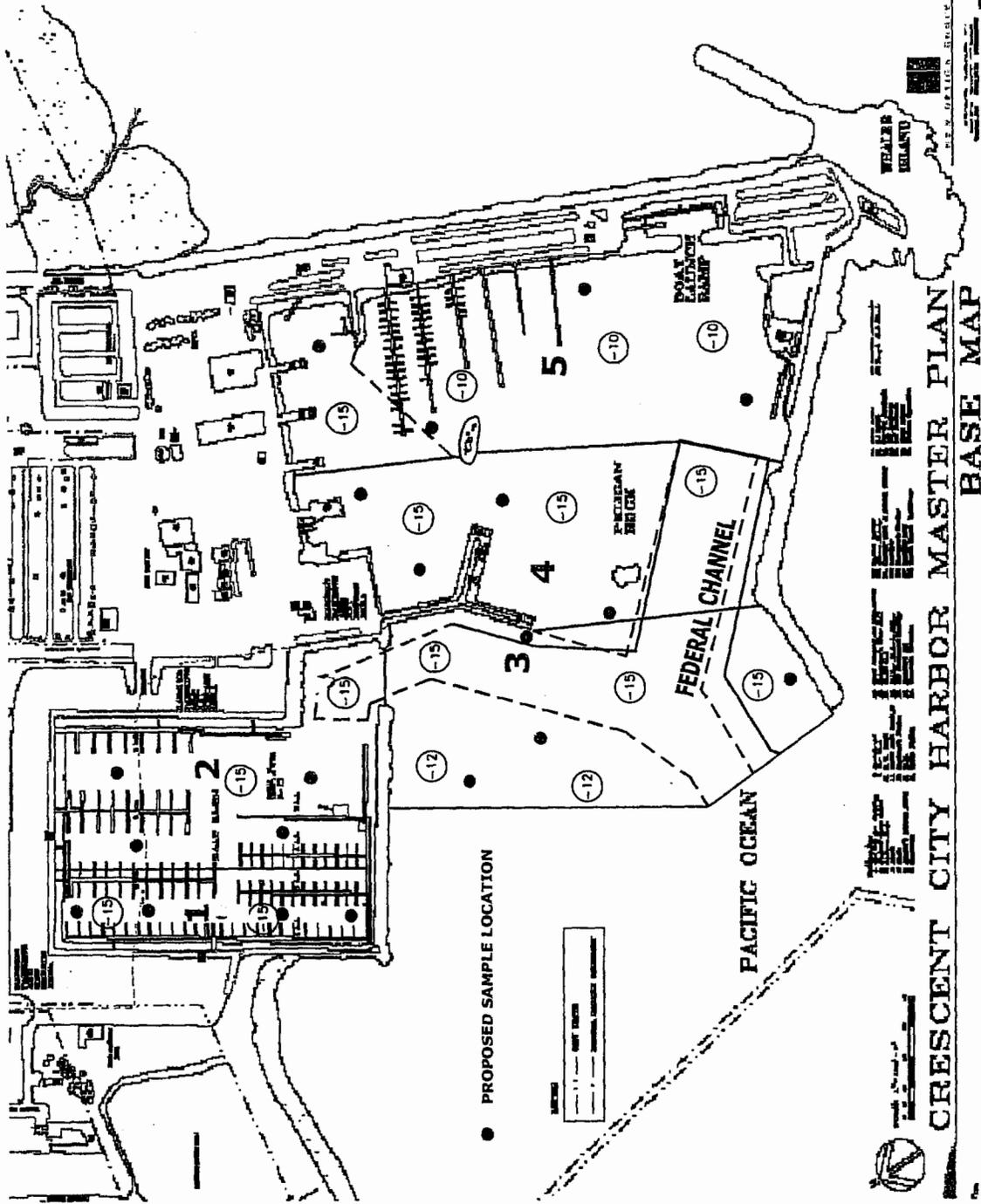
PROJECT NUMBER 0839-01

MARCH 22, 2006

PLATE REFERENCE 08390102A

**Applied
Environmental
Technologies, Inc.**

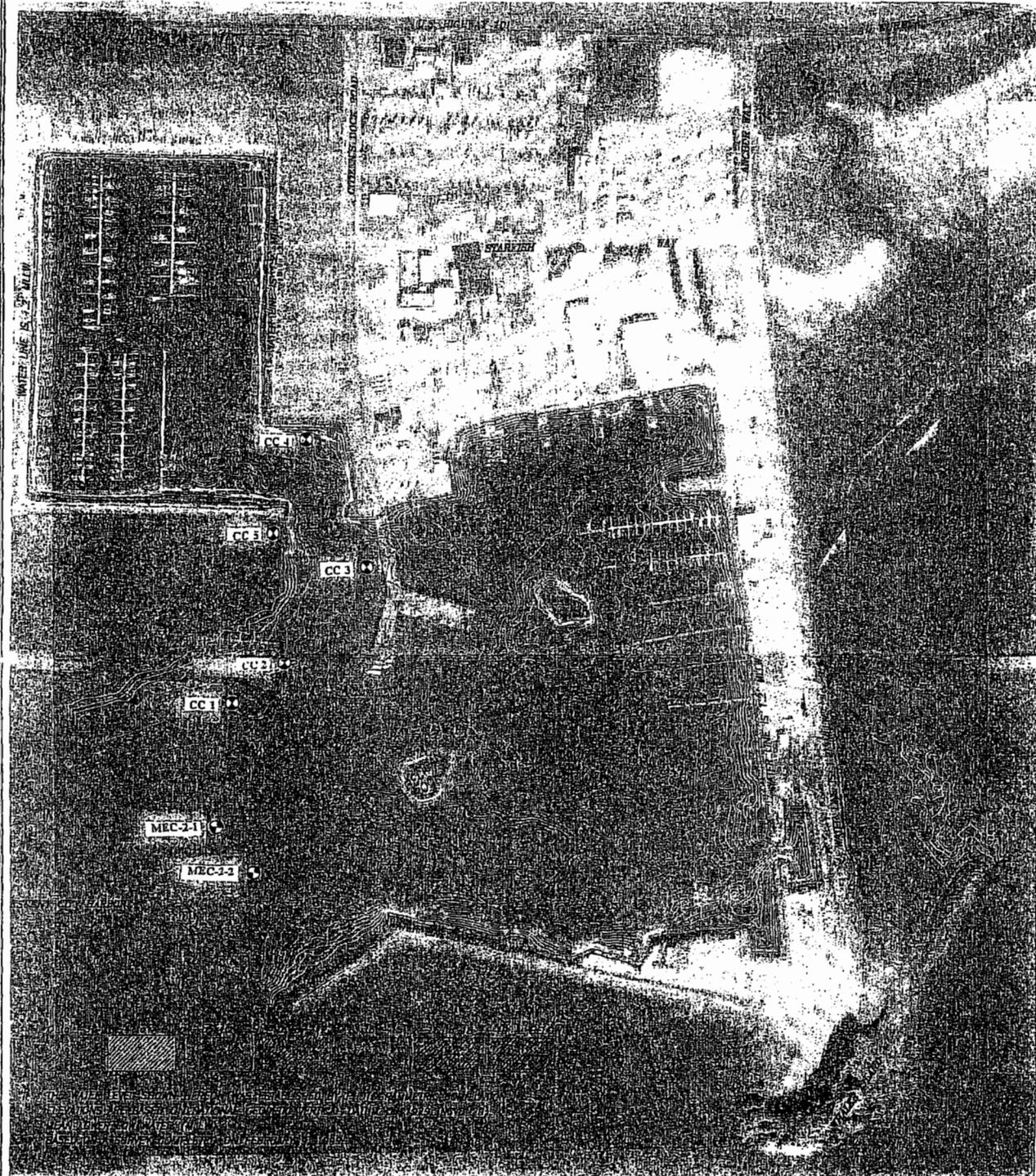
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576



1 = DREDGE AREA NUMBER
⑩ = DESIGN DEPTH (MLLW)

APPROXIMATE SCALE 1" = 550'

11436



● - Former Sampling Locations

12436

Applied

FORMER SAMPLING LOCATIONS
Crescent City Harbor, California

PLATE

Tables

Table 1
Summary of Analyses
Crescent City Harbor

Constituent	LACO, 1996	MEC, 1998	AET, 1999		AET, 2002
			Harbor	Nearshore ¹	
Sediment Grain Size ²	47-71%	34-72%	58-91%	98-99%	46-79%
PAHs	<1-1.7 part per million (ppm)	4-61 µg/kg	21-461 µg/kg	NA ³	ND ⁴
TRPH	NA	NA	ND	NA	18-82 mg/kg
oil & grease	NA	12-72 mg/kg	NA	NA	NA
Pesticides	<10 ppb	ND	ND	NA	ND-6 µg/kg
PCBs	<10 ppb	ND	ND	NA	ND
TOC	4.8-12.8%	1.2-8.7%	5.2-6.1%	NA	0.8-2.3%
Total Solids	43-57%	33.9-75%	52-57%	NA	NA
Total volatile solids	NA	2.4-7.3%	NA	NA	21-22%
Organic Tin	<20 ppb	ND	ND-2 µg/kg	NA	ND-27.7 µg/kg
Antimony	ND	ND	NA	NA	1.93-2.42 mg/kg
Arsenic	8-10 mg/kg	6.8-10.8 mg/kg	3.1-3.56 mg/kg	NA	0.24-1.52 mg/kg
Cadmium	0.55-0.7 mg/kg	0.13-0.56 mg/kg	0.2-0.4 mg/kg	NA	ND-0.42 mg/kg
Chromium	326-416 mg/kg	91-93 mg/kg	62.6-73.9 mg/kg	NA	47.8-68.1 mg/kg
Copper	42.8-49.5 mg/kg	12.3-32 mg/kg	13.5-30.7 mg/kg	NA	11.8-30.2 mg/kg
Lead	8.5-39.1 mg/kg	3.9-7.8 mg/kg	2.5-5.75 mg/kg	NA	2.37-5.63 mg/kg
Mercury	0.10-0.28 mg/kg	0.04-0.1 mg/kg	0.06-0.17 mg/kg	NA	ND-0.09 mg/kg
Nickel	157-177 mg/kg	108-120 mg/kg	96.8-115 mg/kg	NA	73.7-123 mg/kg
Selenium	0.28-0.46 mg/kg	ND-2.36 mg/kg	0.54-0.71 mg/kg	NA	ND-0.23 mg/kg
Silver	0.10-0.13 mg/kg	0.04-0.17 mg/kg	ND	NA	ND
Zinc	108-119 mg/kg	33-53 mg/kg	33.2-67.6 mg/kg	NA	46-137 mg/kg

14936

Constituent	LACO, 1996	MEC, 1998	AET, 1999		AET, 2002
			Harbor	Nearshore ¹	
Bioassay suspended particle ⁵ control	NA	NA	NA	NA	NA
	1%		survival %		
	10%		88.90%		
	50%		78.5-83.4%		
	100%		70.2-81.9%		
Solid Phase ⁶ control reference Harbor			35.9-84.5%		
			0-71.4%		
			survival %		
			92.5-96%		
		87.5-100%			
		63-96%			

¹Nearshore is outside of the harbor to the south.

²Sediment grain size percent is that passing the 200 sieve (sand and gravel)

³NA = not analyzed

⁴ND = not detected

⁵Suspended particle phase testing shows the average number percent of survivors

⁶Solid Phase Testing using *N. arenaceodentata* and *R. abronius*

15936

Table 2
Summary of Sediment Grain Sizes

Period	Percent Sand and Gravel (sediment passing #200 sieve)				
	Area 1	Area 2	Area 3	Area 4	Area 5
LACO 1996	NA ¹	71	47-70	NA	NA
MEC 1998	NA	NA	34-72	NA	NA
AET 1999	NA	69.73	90.64	58.16	58.5
AET 2002	70	77	76	79	46

¹NA=not analyzed

16 of 36

Table 3.
Sediment Grain Sizes
Crescent City Harbor Investigation
August 1999

Grain Size	Harbor								
	[Area 2	Area 3	Area 4	Area 5	[Area 6	Area 7	Beach/Near shore Area 8	Area 9]
Wood	17.32%	1.77%	6.46%	1.89%	0.00%	0.00%	0.00%	0.00%	0.00%
Gravel	0.00%	0.00%	0.00%	0.00%	0.00%	1.05%	0.49%	0.00%	0.00%
Sand	52.41%	88.88%	51.71%	56.61%	98.57%	98.74%	97.37%	99.19%	99.19%
Silt	20.81%	6.44%	28.27%	30.77%	0.64%	0.52%	1.44%	0.66%	0.66%
Clay	9.47%	2.92%	13.57%	10.74%	0.74%	0.69%	0.70%	0.15%	0.15%
Percent Retained on 200 Sieve	69.73	90.64	58.16	58.50	98.57	98.79	97.86	99.19	99.19

17 of 36

Table 4.
 Polynuclear Aromatic Compound Concentrations
 in $\mu\text{g}/\text{kg}$
 August 1999

<u>Constituent</u>	Area 2	Area 3	Area 4	Area 5
	<u>Sample AET-2</u>	<u>Sample AET-3</u>	<u>Sample AET-4</u>	<u>Sample AET-5</u>
Benzo(a)anthracene	48	ND	26	32
Benzo(a)pyrene	ND	ND	29	ND
Benzo(b)fluoranthene	33	ND	25	27
Benzo(k)fluoranthene	79	21	30	59
Chrysene	39	ND	34	38
Fluorene	26	ND	40	98
Phenanthrene	128	ND	22	36
Pyrene	108	ND	41	93

ND = not detected at detection limit.

18936

Table 5
Analytical Results
August 1999

<u>Constituent</u>	<u>Area 2</u> <u>Sample AET-1</u>	<u>Area 3</u> <u>Sample AET-2</u>	<u>Area 4</u> <u>Sample AET-3</u>	<u>Area 5</u> <u>Sample AET-4</u>
TRPH ¹	ND	ND	ND	ND
Organochlorine Pesticides	ND	ND	ND	ND
Polychlorinated Biphenyls	ND	ND	ND	ND
Total Organic Carbon	5.17%	6.04%	6.09%	5.56%
Percent Solids	52.4%	59.1%	53.7%	57.0%

ND = not detected at detection limit.

¹ TRPH = Total Recoverable Petroleum Hydrocarbons

19 of 36

Table 6.
Organotin Concentrations
in $\mu\text{g}/\text{kg}$
August 1999

<u>Constituent</u>	<u>Area 2</u> <u>Sample AET-2</u>	<u>Area 3</u> <u>Sample AET-3</u>	<u>Area 4</u> <u>Sample AET-4</u>	<u>Area 5</u> <u>Sample AET-5</u>
Monobutyltin	ND	ND	ND	ND
Dibutyltin	ND	ND	ND	ND
Tributyltin	2	ND	ND	ND

ND = not detected at detection limit of 1 $\mu\text{g}/\text{kg}$

20436

Table 7.
Metals Concentrations
in mg/kg
August 1999

Constituent	Area 2		Area 3		Area 4		Area 5		Regulatory Limits	
	Sample	AET-2	Sample	AET-3	Sample	AET-4	Sample	AET-5	TTL	STLC*
Arsenic	3.26		3.10		3.56		3.44		500	50
Cadmium	0.32		0.17		0.19		0.42		500	50
Chromium	66.4		62.6		73.9		68.8		500	50
Copper	30.7		13.5		25.5		29.3		2500	250
Lead	4.20		2.50		4.99		5.75		1000	50
Mercury	0.09		0.06		0.15		0.17		20	2
Nickel	102		96.8		115		105		2000	200
Selenium	0.71		0.68		0.54		0.63		100	10
Silver	ND		ND		ND		ND		500	50
Zinc	67.6		33.2		47.7		59.1		5000	2500

ND = not detected at detection limit of 0.10 mg/kg

219 36

Table 8
 Bioassay Results
 Suspended Particulate Phase Testing
 1999

<u>Sample ID</u>	<u>Concentration %</u>	<u>Average % Survivors</u>
Control	0	88.9
AET-2	1	82.5
	10	70.2
	50	51.3
	100	0.0
AET-3	1	83.1
	10	79.6
	50	84.5
	100	71.4
AET-4	1	78.5
	10	78.4
	50	64.5
	100	0.5
AET-5	1	83.4
	10	81.9
	50	35.9
	100	0.64

22 of 36

Table 9
Bioassay Results
Solid Phase Testing
1999

<u>Sample ID</u>	<u><i>N. arenaceodentata</i> % Survival</u>	<u><i>R. abronius</i> % Survival</u>
Control	96	92.5
Reference	100	87.5
AET-2	96	63
AET-3	96	91
AET-4	92	83
AET-5	88	73

23 of 36

Table 10.
Sediment Grain Sizes
Crescent City Harbor Investigation
December 2002

<u>Grain Size</u>	Area 1	Area 2	Area 3	Area 4	Area 5
Gravel	0.00%	0.00%	0.00%	0.00%	0.00%
Sand	70.0%	77.0%	76.0%	79.0%	46.0%
Silt & clay	30.0%	23.0%	24.0%	21.0%	54.0%
Percent Retained on 200 Sieve	70.0	77.0	76.0	79.0	46.0

24 of 36

Table 11
Analytical Results
in mg/kg
December 2002 - January 2003

<u>Constituent</u>	Area 1	Area 2	Area 3	Area 4	Area 5
TRPH ¹	82	24	18	20	20
Organochlorine Pesticides	0.0059 (DDE)	ND	ND	ND	ND
Polychlorinated Biphenyls	ND	ND	ND	ND	ND
Total Organic Carbon	0.82%	1.55%	1.81%	2.32%	2.27%
PAHs	ND	ND	ND	ND	ND
Total volatile solids	NM	NM	21%	21%	22%
Total sulfides	NM	NM	340	290	620
Phenols	ND	ND	ND	ND	ND
Phthalates	ND	ND	ND	ND	ND

ND = not detected at detection limit.

NM = not measured

¹ TRPH = Total Recoverable Petroleum Hydrocarbons

25 of 36

Table 12.
Organotin Concentrations
in $\mu\text{g}/\text{kg}$
December 2002

<u>Constituent</u>	Area 1	Area 2	Area 3	Area 4	Area 5
Monobutyltin	ND	ND	ND	ND	ND
Dibutyltin	ND	ND	ND	ND	ND
Tributyltin	14.5	27.7	ND	ND	ND

ND = not detected at detection limit of 1 $\mu\text{g}/\text{kg}$

26 of 36

Table 13.
Metals Concentrations
in mg/kg
December 2002

Constituent	Regulatory Limits						
	Area 1	Area 2	Area 3	Area 4	Area 5	TTL	STLC ¹
Antimony	2.22	1.93	2.15	2.13	2.42	500	15
Arsenic	1.43	0.88	0.84	0.24j ²	1.52	500	50
Cadmium	ND ³	ND	0.42j	0.15j	0.38j	75	7.5
Chromium	68.1	49.9	47.8	49.4	51.0	2500	5600
Copper	30.2	18.8	11.8	13.6	25.3	8000	800
Lead	5.38	3.75	2.37	4.75	5.63	1000	50
Mercury	ND	ND	ND	0.05j	0.09j	20	2
Nickel	123	100	73.7	77.7	74.4	2000	200
Selenium	ND	ND	0.23j	ND	ND	100	10
Silver	ND	ND	ND	ND	ND	500	50
Zinc	137	118	50.6	46.0	71.3	5000	2500

¹ Incorporates a 10 times dilution to correlate to sample concentrations shown above.

² j = concentration is below practical limit concentration and is an estimate.

³ ND = not detected at practical limit concentration (detection limit).

27 of 36

**APPLIED ENVIRONMENTAL TECHNOLOGIES INC.**

4561 Market St., Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

June 23, 2006
Ref. No. 0839-010

U. S. Army Corps of Engineers
San Francisco District Regulatory Branch
333 Market Street, room 812
San Francisco, CA 94105-2197
Attention: Clyde Davis

Environmental Protection Agency
Region 9 (WTR-8)
75 Hawthorne Street
San Francisco, CA 94105
Attention: Mr. Brian D. Ross

ADDENDUM
REVISED TIER I EVALUATION AND PROPOSED GRAIN SIZE SAMPLING PLAN
CRESCENT CITY HARBOR DISTRICT, CRESCENT CITY, CALIFORNIA

On June 19, 2006, Mr. Brian Ross of the U. S. EPA commented on the Crescent City SAP and Tier I request prepared by Applied Environmental Technologies, Inc. dated May 31, 2006. Mr. Ross' conclusions were that he did not agree that a blanket Tier I determination is appropriate for Crescent City Harbor. Below are our responses to the U. S. EPA and changes to the SAP.

Item 1Comment

The SAP and Tier I request were unclear on the sample locations during the previous sampling episodes.

Response

Plate 1, attached, contains the sampling locations for LACO 1996 and MEC 1998. Plate 2, attached, contains the sample locations for AET 1999 and Plate 3, attached, contains the sample locations for AET 2003. Plate 4, attached, contains the proposed locations of the revised SAP.

28 of 36

U. S. Army Corps of Engineers, Clyde Davis
Environmental Protection Agency, Brian D. Ross

June 23, 2006

Page 2

Item 2Comment

The testing history should fully describe testing done by and for the USACE for the federal channel.

Response

The information contained in the May 31, 2006 report for LACO 1996 and MEC 1998 is the extent of data available to AET regarding USACE testing performed in the federal channel.

Item 3Comment

Sediments from Area 2 were analyzed in 1999 and the results were unacceptable for surf zone deposition.

Response

No additional testing for Area 2 is proposed. Sediment from Area 2 will be placed in the upland location.

Item 4Comment

Sediment grain size in Areas 3, 4 and 5 has varied in the sampling reports. Additional information is required prior to approving the sediment for surf zone deposition.

Response

In discussions with Mr. Ross, the sediment in Areas 3, 4 and 5 will be sampled as described in the May 31, 2006 SAP. Individual cores from the areas will be homogenized and then analyzed for grain size and TOC prior to compositing. Sediments that do not pass the 80 percent grain size retained on the 200 sieve will be placed in the upland disposal area and not be proposed for surf zone deposition. Areas that contain sediment that at least 80 percent is retained on the 200 sieve will be proposed for surf zone deposition.

29836

U. S. Army Corps of Engineers, Clyde Davis
Environmental Protection Agency, Brian D. Ross

June 23, 2006
Page 3

Item 5

Comment

The SAP did not describe the exact deposition location of sediment that passed the grain size and TOC limitations.

Response

It is proposed that the sediment that contains more than 80 percent sand will be deposited off Whaler Island (Plate 5, attached). Materials that do not pass the grain size and TOC limitations in Areas 3, 4 and 5, as well as any materials removed from Areas 1 and 2, will be deposited in the upland area.

Item 6

Comment

The SAP was unclear as to the use of the Tier I request.

Response

The use of the Tier I request and the findings of the dredging investigation are intended to be used only over the next 3 years. A new Tier I request or SAP would be prepared prior to the next sampling episode.

Item 7

Comment

The EPA is concerned that the conceptual dredging plan described in the SAP may not be realistic. The Harbor proposes the dredging of up to 333,000 cubic yards. Materials that are not suitable for surf zone deposition would be placed in the Harbor's upland disposal area, which has been reported to have space for approximately an additional 10,000 cubic yards.

Response

The Harbor District understands that material not suitable for surf zone deposition would need to be placed in the upland area, which has a limited capacity. The Harbor District would have to plan what areas of the harbor require dredging that can fit in the upland area. The Harbor District is currently researching uses and disposal options for the material currently stored in the upland area. When the upland area is filled, no further dredging will be conducted unless suitable for the surf zone deposition.

30 of 36

U. S. Army Corps of Engineers, Clyde Davis
Environmental Protection Agency, Brian D. Ross

June 23, 2006
Page 4

Item 8

Comment

The EPA requests more description of the alternatives for disposal in that the upland area is limited on the volume of material it can take.

Response

As stated above, the Harbor District has only two realistic alternatives: upland or surf zone disposal. The Harbor District currently has their own dredge (hydraulic) that can place the material either in the upland area or the surf zone. While the Harbor District urges the USACE to secure permission to use the Chetco River Ocean Disposal Site for the deposition of the federal channel materials, the use of the Chetco River Ocean Disposal Site for the deposition of the Harbor District sediments is not economically feasible because the Harbor would have to hire a clamshell and barge to transport the material.

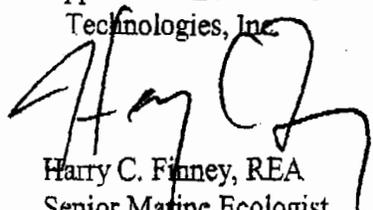
Summary

Based on the EPA's comments, this Addendum will revise the May 31, 2006 SAP as follows.

1. No sampling will be conducted in Areas 1 and 2. When dredging occurs the material from these areas will be placed in the upland location.
2. In Areas 3, 4 and 5, the individual cores collected will be sampled for grain size and TOC. The grain size and TOC data will be reviewed with the EPA and the USACE to identify areas that can go to the surf zone from a grain size and TOC perspective.

Should you have any questions or comments concerning this report, please contact us.

Very truly yours,
Applied Environmental
Technologies, Inc.

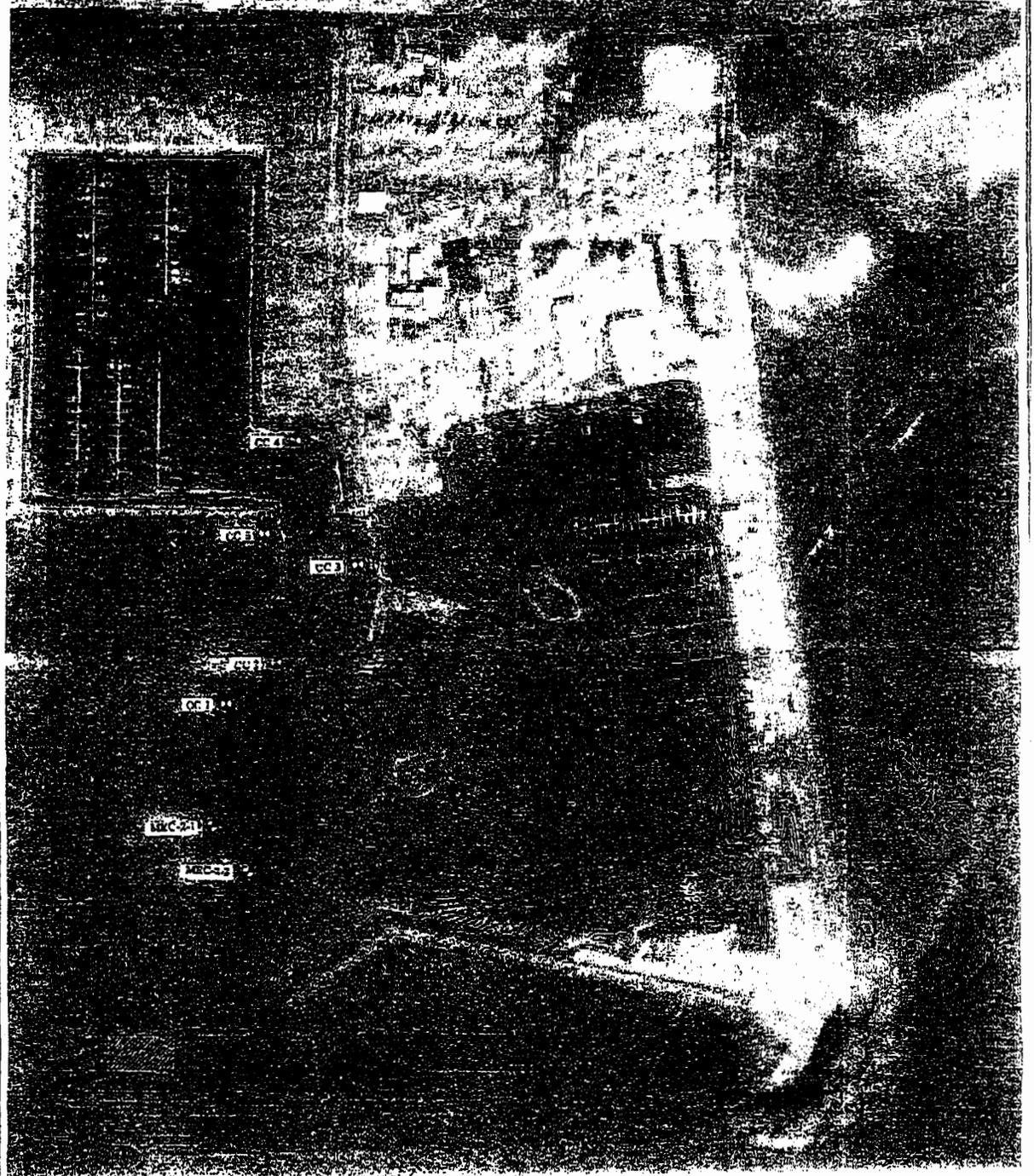


Harry C. Finney, REA
Senior Marine Ecologist

HCF/wp

cc: Mr. Richard Parsons
Mr. Richard Young, Crescent City Harbor

31 of 36



⊙ - Former Sampling Locations

32 of 36

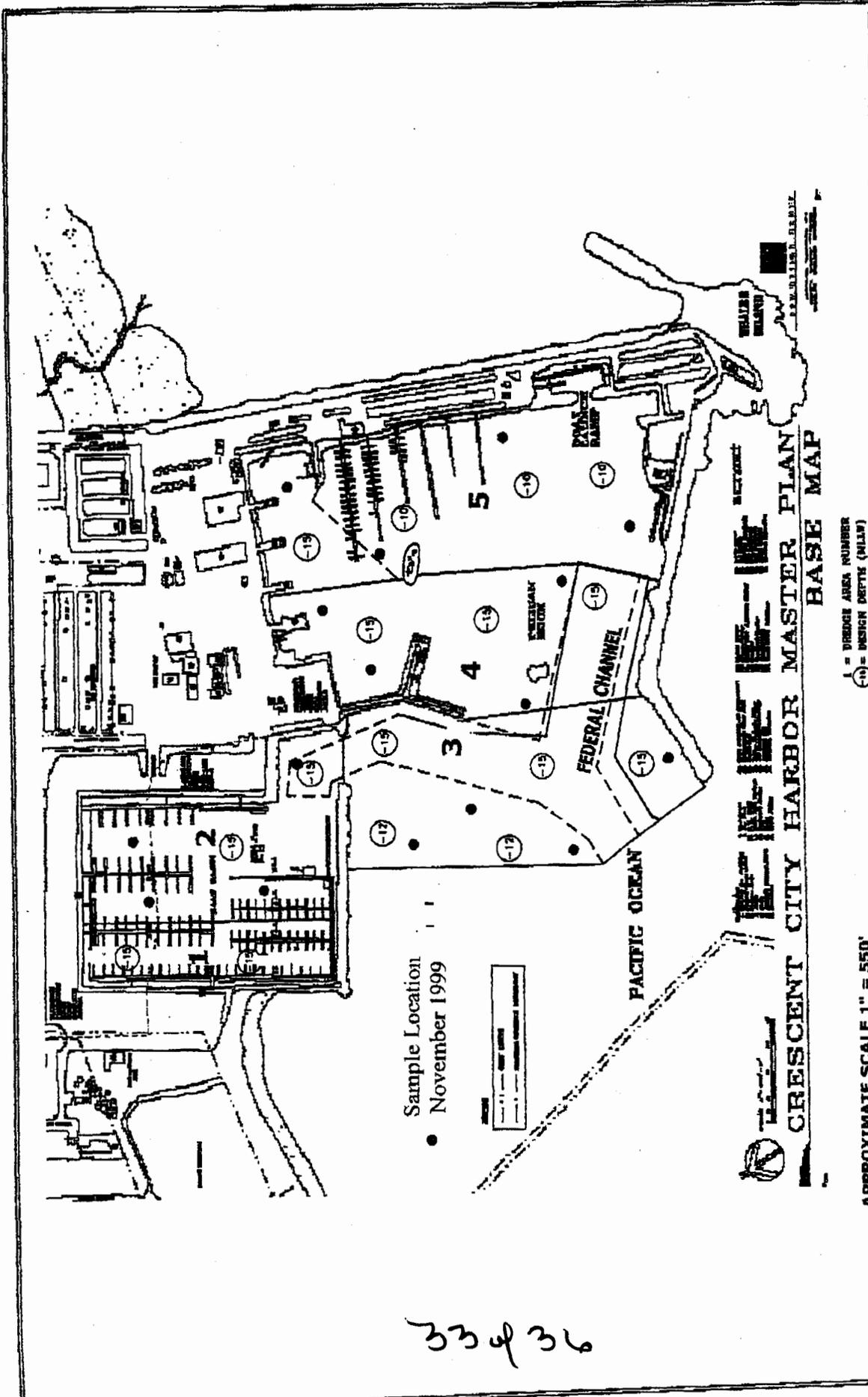


PLATE
2

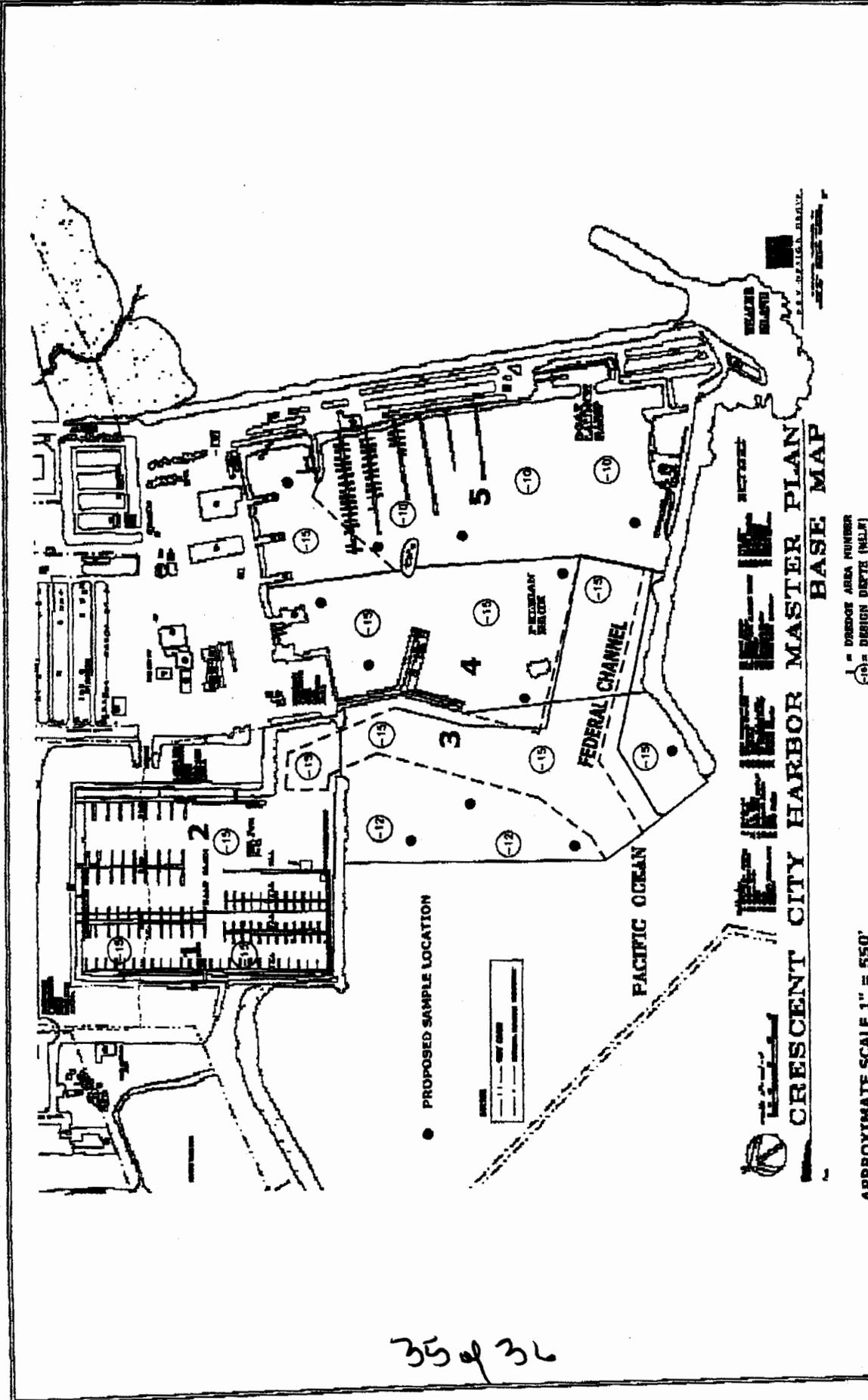
DREDGING PLAN
CRESCENT CITY HARBOR
CRESCENT CITY, CALIFORNIA

PROJECT NUMBER 0839-01

PLATE REFERENCE 08390102A

Applied Environmental Technologies, Inc.
 4561 Market Street, Suite B • Ventura, California 93003
 Phone (805)650-1400 Fax (805)650-1578

33 of 36



**PLATE
4**

**DREDGING PLAN
CRESCENT CITY HARBOR
CRESCENT CITY, CALIFORNIA**

PROJECT NUMBER 0839-01

JUNE 22, 2006

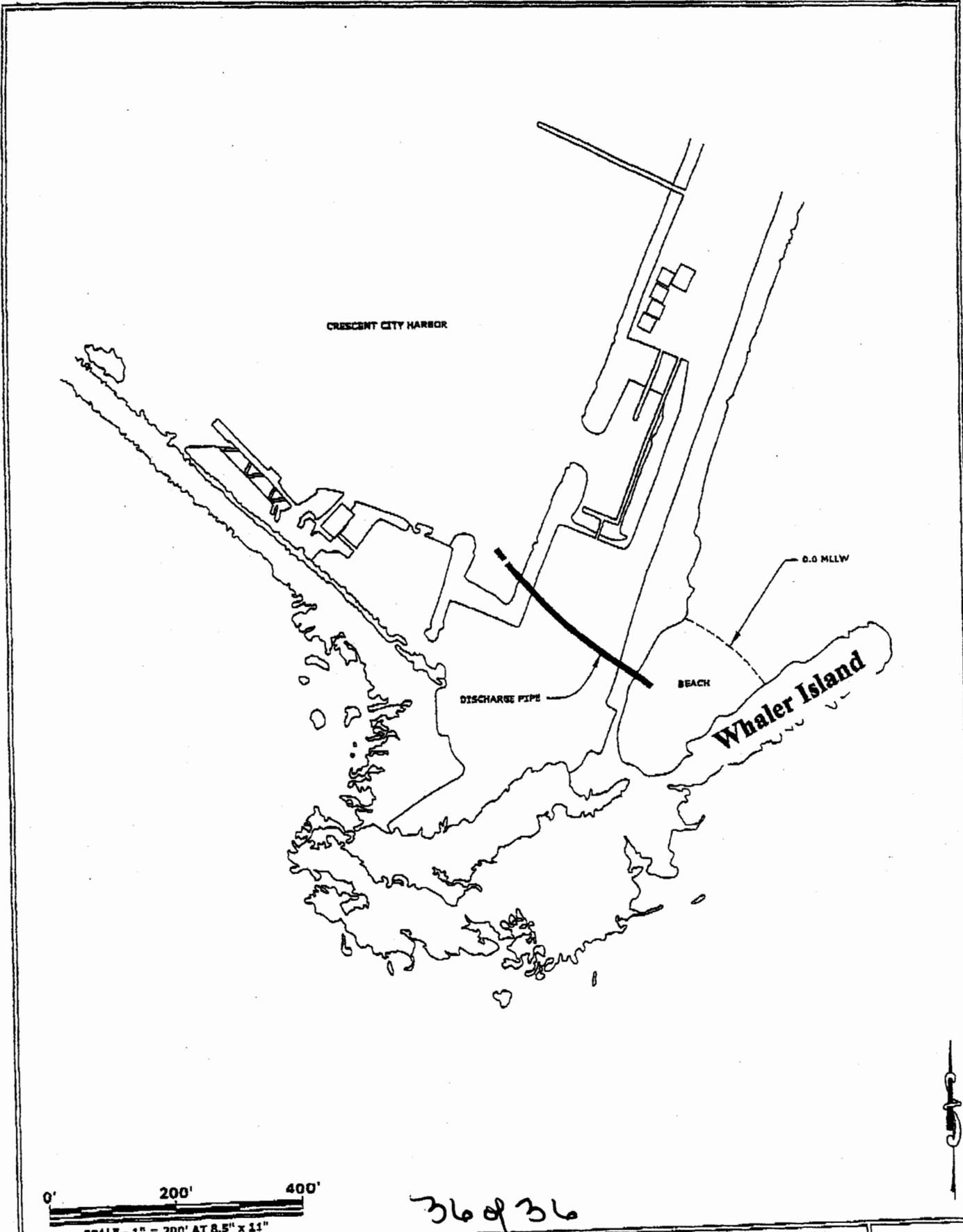
PLATE REFERENCE 08390102A

**Applied
Environmental
Technologies, Inc.**

4551 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400
Fax (805)650-1576

APPROXIMATE SCALE 1" = 550'

35 of 36



36 of 36



**Applied
Environmental
Technologies, Inc.**

10000 SUTTER AVENUE, SUITE 200, VENTURA, CALIFORNIA 93003

**DISCHARGE AREA DETAIL
CRESCENT CITY HARBOR
CRESCENT CITY, CALIFORNIA**

STATE LICENSE NO. 08390101B

NOVEMBER 7, 2001

PROJECT NUMBER 0839-01

PLATE

5

**State Lands Commission
State of California
Dredging and Disposal Lease No. PRC 5202.9**

This Dredging Lease is made and entered into pursuant to Section 6303 of the Public Resources Code by and between the State of California, acting by and through the **State Lands Commission** (hereinafter "**State**"), as Lessor, and the **Crescent City Harbor District** (hereinafter "**Lessee**"), whose mailing address is: 101 Citizens Dock Road, Crescent City, CA 95531.

In consideration of the terms, covenants, and conditions set forth below, the State issues to Lessee a lease to dredge that certain parcel of land designated as the Leased Lands, situated in the State of California, involving granted tide and submerged lands, with minerals reserved by the State of California, located in the Crescent City Harbor, City of Crescent City, Del Norte County, as shown on the attached Exhibit "A", and to deposit the dredged material at two designated disposal areas as provided in Paragraph 5 of this Lease.

1. Purpose of Lease: Lessee is hereby authorized to dredge and dispose of sand, gravel, silt and clay (hereinafter Dredged Materials) at approved disposal sites for purposes of improvement of navigation, reclamation or flood control as provided herein.

2. Limitations:

(a) This Lease does not authorize the construction or placement of any improvements or fixtures, including but not limited to groins, jetties, sea walls, breakwaters, and bulkheads on the Leased Lands.

(b) This Lease does not authorize Lessee to dredge for purposes of commercial resale, environmental mitigation credits or other private benefit.

3. Term: This Lease shall commence **August 1, 2000**, which date shall be hereafter referred to as the "effective date" of this Lease, and shall continue through **July 31, 2010**, a period of **ten (10) years**, unless sooner terminated as provided for in this Lease.

4. Materials To Be Dredged: Lessee is hereby authorized to dredge and remove a maximum of 100,000 cubic yards of Dredged Materials from the Leased Lands each lease year.

5. Disposal Area: Lessee is authorized to dispose of the Dredged Materials at the following designated Disposal Sites: (1) an established uplands disposal site just to the west of the inner basin. This disposal site will be utilized on a year round basis subject to its capacity limitations and dredging needs and (2) the surf zone and nearshore waters just to the east of the Whaler Island causeway. The surf zone and nearshore waters to the east of Whaler Island causeway would be utilized only between August 1st and December 31st of each year.

EXHIBIT NO. 6

APPLICATION NO.

1-05-058

CALIFORNIA STATE LANDS
COMMISSION DREDGING &
DISPOSAL LEASE NO. PRC
5202.9, APPROVED 6/27/00,
EXPIRES 7/31/10 (1 of 9)

6. Environmental Finding: This activity is exempt from the requirements of the California Environmental Quality Act (CEQA) as a categorically exempt project. The project is exempt under Class 4, Minor Alteration to Land, Title 14, California Code of Regulations, Section 15304(g).

7. Royalty:

(a) No royalty shall be charged for dredged material deposited at the District's designated disposal sites identified in Paragraph 5 because the project is considered a public benefit.

(b) A minimum of \$0.25 per cubic yard shall be charged for dredged material used for private benefit or commercial sale purposes.

(c) Royalties shall be due and payable on the fifteenth (15th) day of the month following the end of each lease quarter. A lease quarter is a three month period, the first one beginning on the effective date of the Lease and the subsequent ones running consecutively thereafter. All royalty payments shall be made by check or wire transfer. If made by check, they shall be made to the address provided for in Paragraph 10, below. If made by wire transfer, they shall be made to the address provided for in Paragraph 10, below. If made by wire transfer, they shall be deposited into the State's bank account as provided in directions to be furnished to the Lessee by the State.

8. Penalty and Interest:

(a) Royalties and other monetary considerations provided for in this Lease that are not paid when due shall bear interest from the day following the day on which such payment was due until the day of payment in the amount of one and one-half percent (1.5%) per month compounded annually. In addition, a five percent (5%) penalty shall be applied to the total amount past due (excluding payment of interest) which shall be payable with such amount past due.

(b) Penalty and interest for late payments shall apply to amounts determined by the State to be due and timely paid by the Lessee, including without limitation, insufficient payments based on inaccurate, unreasonable or inapplicable information contained in the quarterly statement submitted to State in accordance with Paragraph 9 of this Lease.

9. Record Keeping and Audits:

(a) Lessee shall prepare and maintain accurate records of its operations under this Lease. On or before the fifteenth (15th) day of the month following the lease quarter, Lessee shall provide to State a detailed statement (hereinafter "Quarterly Report") of the

2 of 9

amount of Dredged Materials and copies of reports or contracts with the dredging operator substantiating the volume of Dredged Materials and placement of Dredged Materials.

(b) At the request of State, the Lessee shall provide additional reasonable additional information to State to assist it in interpreting and evaluating the contents of Lessee's Quarterly Report.

(c) All Quarterly Reports and royalty statements shall be subject to audit by State, at State's sole cost. Upon reasonable advance notice to the Lessee from State, Lessee shall make available to State, during business hours, Lessee's books, records, calculations and other materials that are directly related to the Leased Lands and any other lands joined with the Leased Lands under Lessee's plan of operation and the contents of its Quarterly Reports.

(d) Lessee waives any rights or objections it may have and consents to the examination, inspection and audit of the books and records of Lessee and any other party associated with the dredging activities.

(e) Lessee shall, within 30 days of the State's request, provide copies of all data arising from Lessee's operations on the Leased Lands including, but not limited to, surveys of the Leased Lands conducted by or for Lessee before and after dredging under this Lease. All proprietary information and trade secrets shall be held in confidence by the State.

10. **Notices:** All notices to be given under this Lease shall be deemed to have been given when made in writing, and deposited in the United States mail, first class postage prepaid, addressed as follows:

If to the State: State Lands Commission
100 Howe Avenue, Suite 100 So.
Sacramento, CA 95825-8202
Attention: Chief, Land Management Division

If to the Lessee: Crescent City Harbor District
Attn: Lindsay Marks, Chief Executive Officer
101 Citizens Dock Road
Crescent City, CA 95531

The address to which notices shall be mailed may be changed by written notice as provided for in this paragraph 10. All notices to be given under this paragraph shall be deemed to have been given if made in writing and personally served upon the other party.

399

11. **Conduct of Operations:** Lessee shall safely conduct all dredging and disposal operations in accordance with accepted dredging and disposal methods and practices and with due regard for the protection of life and property, preservation of the environment and the conservation of natural resources.

12. **Waste of Resources, Damage, Loss and Liability:** Lessee shall use all reasonable precautions to prevent waste of, damage to, or loss of mineral resources, fisheries, wildlife and the environment on or in the Leased Lands and shall be liable to State for any such waste, damage or loss to the extent that such waste, damage, or loss is caused by (1) the intentional or negligent acts of Lessee, its employees, servants, agents or contractors; (2) the breach of any provision of this Lease by Lessee, its employees, servants, agents or contractors; or (3) the noncompliance of the Lessee, its employees, servants, agents or contractors, with applicable statutes or rules and regulations of State provided, however, that nothing herein shall diminish any other rights or remedies which State may have in connection with any such negligence, breach or noncompliance.

13. **Existing Rights:** This Lease is issued subject to all valid rights, previously granted by the State and existing on the date hereof. Such existing rights shall not be adversely affected by the issuance of this Lease.

14. **Other Easements and Interests:**

(a) To the extent of the right, title and interest of the State in the Leased Lands and subject to the rights of the Lessee hereunder, State shall have the right at any time during the term hereof, or any extension as provided herein, to grant to any person or entity, upon such terms as the State may determine to be appropriate, such easements, rights of way, leases, or other interests in the Leased Lands as the State may in its discretion determine to be necessary or appropriate. The State in no event shall grant interests in the Leased Lands that unreasonably interfere with, impede, disrupt or endanger Lessee's activities under this Lease.

(b) Lessee agrees to allow the State, the State's easement holders, permittees or lessees to enter upon the Leased Lands in order to conduct such prospecting and mining activities or other authorized activities; provided that such parties shall provide Lessee with reasonable advance notice of their entry on the Leased Lands and the contemplated activities while on the Leased Lands. The State shall require such parties to indemnify, defend and hold Lessee harmless from and against any loss, cost, charge, cause of action or other liability of any kind whatsoever that arises out of such parties activities on, in or associated with the Leased Lands.

15. **Entry And Inspection Of Leased Lands:** State and its authorized designees shall have the right at all reasonable times to go upon the Leased Lands for the purpose of inspecting Lessee's operations, for the purpose of maintaining or repairing

improvements thereon, for the purpose of placing thereon signs for fire, police, or wildlife management purposes, all without any effect on payments due hereunder and without liability of the State for any loss of occupation of the Leased Lands by the Lessee.

16. **Suspension Of Operations:** Lessee shall immediately suspend all operations under this Lease, except those which are corrective or mitigative, when ordered by the State to do so upon the State's determination that Lessee's operations are causing or creating undue harm to public safety or to the environment or are otherwise not in the State's best interests. Lessee shall not resume operations under this Lease until the State has determined that adequate and feasible corrective or mitigative measures will be implemented by Lessee.

17. **Default And Remedies:**

(a) Failure of Lessee to comply with any provision of this Lease or with the laws, regulations or rules applicable thereto shall immediately and without further notice constitute a default or breach of the Lease by Lessee.

(b) In the event of a default or breach by Lessee and Lessee's failure to cure such default or breach within 30 days of the State having given written notice of such default or breach, the State may at any time, and with or without further notice, do any of the following:

(1) Re-enter the Lease Premises, remove all persons and property, and repossess and enjoy such Lease Premises;

(2) Terminate this Lease and Lessee's right to possession of the Lease Premises. Such termination shall be effective upon the State giving written notice and upon receipt of such notice, Lessee shall immediately surrender possession of the Lease Premises to Lessor;

(3) Maintain this Lease in full force and effect and recover any royalty or other consideration as it becomes due without terminating Lessee's right of possession regardless of whether Lessee shall have abandoned the Lease Premises; and/or

(4) Exercise any other right or remedy which Lessor may have at law or equity.

18. **Waiver Of Breach:** The State's waiver of any default or breach of any term, covenant or condition of this Lease shall not constitute a waiver of any other default or breach whether of the same or any other term, covenant or condition, regardless of the State's knowledge of such other defaults or breaches. The subsequent acceptance of monies hereunder by the State shall not constitute a waiver of any preceding default or breach of any term, covenant or condition, other than the failure of the Lessee to pay the

particular monies so accepted, regardless of the State's knowledge of such preceding default or breach at the time of acceptance of such monies. Nor shall acceptance of monies after termination of this Lease constitute a reinstatement, extension, or renewal of this Lease or revocation of any notice or other act by State.

19. **Workers Compensation:** Lessee shall at all times in any and all of its operations hereunder and any works in and upon the Leased Lands, carry full and complete workers compensation insurance covering all of its employees.

20. **Insurance:** Prior to commencement of operations hereunder Lessee shall obtain and maintain comprehensive bodily and personal injury and property damage liability insurance for the benefit of the State. With the prior written approval of State, Lessee may self-insure, if it meets the requirements of the State of California for self insurance.

21. **Bond Or Other Security:** Within thirty (30) days following approval of the issuance of this Lease by the State and prior to commencement of any dredging activity, Lessee shall furnish and maintain until released by the State, a bond or other security instrument acceptable to the State in the amount of \$ -0- and in favor of the State for its exclusive use and benefit, guaranteeing the performance by the Lessee of the terms and conditions of this Lease and observance of the provisions of the Public Resources Code and the rules and regulations of the State. Said bond shall require the surety to give at least one hundred and twenty (120) days' written notice of its intention to cease acting as guarantor. If a surety gives notice of its intention to cease acting as guarantor, the Lessee shall provide to State within thirty (30) days of such notice a replacement bond of equal value to become effective upon the expiration of the existing bond. Failure to provide such a replacement bond within the required time shall constitute a default entitling State to levy against the entire amount of the existing bond. Lessee agrees that in no event shall the amount of the bond be construed as a limitation on its liability. This requirement shall be separate from any other bonding provisions of the Public Resources Code and the regulations of the State of California or any other State, local or federal requirement.

22. **Indemnification:** Lessee agrees to indemnify, save harmless, and at the option of the State, defend the State of California, its officers, agents and employees, against any and all claims, demands, causes of action, or liability of any kind which may be asserted against or imposed upon the State of California or any of its officers, agents or employees by any third person or entity arising out of or connected with Lessee's operations under this Lease or the use by Lessee or its agents, employees or contractors, of the Leased Lands.

23. Taxes:

(a) In accepting this Lease, Lessee understands that the interest created herein may be subject to a possessory interest tax imposed by a local or county tax assessor. Any such possessory interest tax imposed shall not reduce any royalty due hereunder and payment of the tax shall be the liability of the Lessee.

(b) During the term hereof the Lessee shall pay, when due, all taxes and assessments lawfully made and levied under the laws of the State of California or any political subdivision thereof, and of the United States, against any and all improvements, property or assets of Lessee situated upon the Leased Lands. No such taxes and assessments shall be deductible from royalties or other monetary consideration due under this Lease.

24. No Warranty Of Title: This Lease is issued upon the application of Lessee and is entered into without a formal title determination. This Lease shall in no way be construed as establishing the extent of the State's claim of title to any real property. The State makes no warranty as to title or rights of possession or quiet enjoyment of the Leased Lands.

25. Assigns and Successors: This Lease shall not be assigned without the express prior written approval of State. Any unauthorized assignment shall be null and void, a breach of this Lease and grounds for termination of this Lease. Upon approval of an assignment by State the covenants and conditions contained herein shall apply to and bind the heirs, successors, executors, administrators and assigns of all of the parties hereto; and all parties hereto shall be jointly and severally liable hereunder.

26. Compliance With Laws, Rules And Regulations: Lessee shall comply with all applicable laws, regulations and rules of the United States, the State of California and counties or cities now or hereafter enacted or promulgated, including, without limitations, all applicable provisions of the Public Resources Code, the California Administrative Code, and the Statutes of California, regardless of which agency or government body may have jurisdiction with respect to enforcement. Lessee also agrees that in its employment practice hereunder, it shall not discriminate against any person because of race, color, religion, sex, ancestry or national origin.

27. Captions: The captions in this Lease are for convenience only and are not a part of this Lease and do not in any way limit or amplify the terms and conditions of this Lease.

28. Additional Permits and Authorizations: Lessee agrees to obtain all necessary authorizations and permits prior to the commencement to the dredging, as identified in this lease, and agrees to provide Lessor with all copies of permits or

799

authorizations obtained from the California Coastal Commission, the United States Army Corps of Engineers, North Coast Regional Water Quality Control Board and all other agencies and entities having jurisdiction over the dredging project identified in this lease.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date hereafter affixed.

LESSEE:
CRESCENT CITY HARBOR DISTRICT

STATE OF CALIFORNIA
STATE LANDS COMMISSION

By: Lindsay A. Marks
LINDSAY MARKS

By: Arnold S. Orduse
Assistant Chief
Land Management Division

Title: CHIEF EXECUTIVE OFFICER

Title: _____

Date: 6/13/00

Date: JUL 27 2000

This Lease was authorized by the State
Lands Commission on
JUL 27, 2000
(Month, Day, Year)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

No. 5907

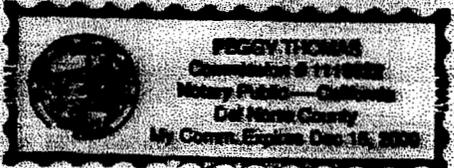
State of California

County of Del Norte

On June 13 2000 before me, Peggy Thomas
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared Lindsay Marks
NAME(S) OF SIGNER(S)

personally known to me - OR - proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.
Peggy Thomas
SIGNATURE OF NOTARY

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- INDIVIDUAL
- CORPORATE OFFICER
- _____ TITLE(S)
- PARTNER(S) LIMITED
- GENERAL
- ATTORNEY-IN-FACT
- TRUSTEE(S)
- GUARDIAN/CONSERVATOR
- OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

_____ TITLE OR TYPE OF DOCUMENT

_____ NUMBER OF PAGES

_____ DATE OF DOCUMENT

_____ SIGNER(S) OTHER THAN NAMED ABOVE

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

949

DEPARTMENT OF THE ARMY PERMIT

Permittee: Crescent City Harbor District

Permit No.: 24221N

Issuing Office: San Francisco District

EXHIBIT NO. 7
APPLICATION NO. 1-05-058
U.S. ARMY CORPS OF ENGINEERS INDIVIDUAL PERMIT NO. 24211N, ISSUED JUNE 14, 2001, EXPIRES DECEMBER 31, 2011 (1 of 14)

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

Project Description: To maintenance dredge, annually over a ten year period, approximately 100,000 cubic yards of sediment, or a maximum of 1 million cubic yards during the life of the permit. Dredging would occur by hydraulic dredge and in part by clamshell dredge at the Crescent City Harbor. The dredged material would be disposed at the upland disposal site or the Whaler Island Disposal Site provided it is suitable for disposal in those locations. The above described project would be performed in accordance with the attached drawings marked, "Purpose: Maintenance Dredging with Upland Disposal, At: Inner Boat Basin, Recreation Moorings, and Boat Repair Slips, In: Crescent City harbor, Co: Del Norte, State: CA, Application By: C.C. Harbor Dist." in three (3) sheets dated 12/16/99 (Enclosure 1).

The design depths are as follows (depths are given in mean lower low water datum [MLLW]):

- Area 1: -15 feet
- Area 2: -15 feet
- Area 3: -12 to -15 feet
- Area 4: -15 feet
- Area 5: -10 to -15 feet

All the above depths will have an additional two-foot overdredge allowance.

Project Location: Crescent City, Del Norte County, California

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2011. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
7. You understand and agree that, if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expenses to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Special Conditions:

1. The permittee shall comply with the Special Conditions imposed by the California Coastal Commission as contained in Coastal Development Permit No. 1-00-006.
2. The permittee shall avoid operating the hydraulic dredge while the cutter head is more than three feet above the bottom.
3. The permittee, when using the upland disposal site, shall place all dredged material within the confines of the upland disposal basin compartments and shall avoid placement onto the adjacent beach or wetland areas.
4. The permittee shall provide to the Corps of Engineers and the National Marine Fisheries Service a copy of the annual California Regional Water Quality Control Board water quality monitoring report.
5. The permittee shall comply with all applicable U.S. Coast Guard regulations.
6. Dredging activities will occur outside of the sensitive Pacific herring spawning season, January 1 through March 31. If dredging activities are necessary during this time period, the permittee shall contact the Corps and the National Marine Fisheries Service prior to beginning any dredging activities.
7. When transferring dredged material to a dump truck for upland disposal, the permittee shall ensure that fallback of material into the water is minimal.
8. See the attached Special Conditions on pages 2A-2E.
9. The initial dredging episode may include Areas 2, 3, 4, and 5. Subsequent episodes for all areas must also follow the attached Special Conditions (pages 2A-2E). For clarification, a dredging episode will begin on April 1 and end on December 31.

SPECIAL CONDITIONS TO PERMIT NUMBER 24221N

1. To provide notification to the maritime community of activities affecting navigation, the permittee shall provide in writing to the Commander (POW), 11th Coast Guard District, Bldg 50-6, Coast Guard Island, Alameda, California 94501-5100, (POC: Operations Officer, Aids to Navigation Section, PH:510-437-2969, FAX: 510-437-5836), the following information at least two weeks before commencing work:

- a. Name and telephone number of the project manager.
- b. Size and placement of any floating construction equipment.
- c. Radio telephone frequencies and call signs of any marine equipment.
- d. Work start and completion dates.

2. The Coast Guard Captain of the Port (COTP) of San Francisco Bay (Crescent City Harbor does not have a COTP) may require modifications to marine construction equipment deployment or mooring systems to safeguard navigation while work is in progress. Upon receipt of the notification to start, the Coast Guard will send a copy of the permittee's letter to the COTP for review.

3. The permittee shall submit to the Corps of Engineers, Operations and Readiness Division at 333 Market Street, suite 812, San Francisco, California 94105-2197 or FAX # (415) 977-8343, the following reports for review and comment:

- a. Dredge Material Analysis: Submit, for approval, no earlier than 60 days prior to proposed commencement of any authorized successive dredging episodes, dredge material analysis (Chemical and Physical), sampling and testing information. **Please include the Corps permit number and dredge episode number with this submittal.** Also submit Regional Water Quality Control Board water quality certification or waiver for disposal of the material. For each dredging episode, the permittee shall obtain the approval of the District Engineer for formulating specific sediment testing procedures for the Dredge Material Analysis. The testing protocol will be in accordance with the testing guidelines as published in the Corps and U.S. Environmental Protection Agency publication entitled, "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Testing Manual" (The Inland Testing Manual or ITM), dated February 1998, and subsequent amendments thereto.

b. Dredging Operation Plan: Submit, for approval by this office, no earlier than 60 calendar days and no later than 20 calendar days before the proposed commencement of dredging, a plan which includes the following: **Corps permit number, dredge episode number**, a copy of the dredging contract or description of the work under which the contractor will do the permitted work; name and telephone numbers of the dredging contractor's representative on site; dredging start and completion dates; names of vessel; dump scow numbers or identification; bin or barge capacities; identification of work as either maintenance dredging or new dredging; discussion of proposed dredging procedures, as governed under Special Condition No. 5, with detailed drawings or specifications of the grid or centrifugal pump system; quantity of material to be removed; dredging design depth and typical cross section including overdepth; and date of last dredging episode and design depth. The dredging Operational Plan shall also provide the following information:

1) The controls being established to insure that dredging operations occur within the limits defined by the permitted area. The horizontal and vertical positioning systems being utilized must be indicated as noted in No. 2 below.

2) Method of determining electronic positioning of dredge during entire dredging operation at dredge site.

Please note that failure to provide all of the above information may result in delays to your project. When your dredge operation plan has been approved, you will receive a written authorization to commence with your project.

c. Before Dredging Survey: You shall conduct a survey of the upland disposal site prior to each episode (a dredging episode will begin on April 1 and end on December 31). These surveys shall be accurate to one-tenth foot and will establish existing conditions. This survey will satisfy requirements for dredging areas 1, 2, 4, and 5. This survey shall be submitted no earlier than 60 calendar days and no later than 20 calendar days before commencement of dredging.

If dredge material from dredging area 3 is to be deposited at the Whaler Island Disposal Site, you shall submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of dredging, a survey with accuracy to one-tenth foot which delineates the following: areas to be dredged (within area 3) with overdepth

40914

allowances; existing depths; estimated quantities to be dredged for the project; and estimated quantities for overdepth. **All surveys shall be signed by the permittee to certify their accuracy. Please include the Corps permit number and dredge episode number.** Use of other surveys, if conducted within 60 days before or after dredging, may also be used.

Please note that failure to provide all of the above information may result in delays to your project.

d. Solid Debris Management Plan: Submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of work, a plan which describes measures to ensure that solid debris generated during any authorized demolition or construction operation is retained and properly disposed of in areas not under Corps jurisdiction. At a minimum, the plan shall include the following: source and expected type of debris; debris retrieval method; **Corps permit number and dredge episode number**; disposal method and site; schedule of disposal operations; and debris containment method to be used, if floatable debris is involved.

Please note that failure to provide all the above information may result in delays to your project.

e. Disposal Site Verification Log (DSVL): Submit on a weekly basis by noon Monday, the one-page log which enumerates work accomplished during the preceding week to Corps of Engineers, Operations and Readiness Division at 333 Market Street, suite 812, San Francisco, California 94105-2197 or FAX # (415) 977-8495, Attn: Mr. David Dwinell. **Please include the Corps permit number and dredge episode number.** The log will be provided when the Corps approves the Dredge Operation Plan and authorizes the commencement of the dredging.

f. Overflow requirements:

1. During transportation from the dredging site to the disposal site for clamshell operations, no material shall be permitted to overflow, leak or spill from dump trucks, barge, bins or dump scows.

2. During dredging operations, overflow is not allowable except for incidental spillage during clamshell operations.

g. Post Dredging Survey: For dredge areas 1, 2, 4, and 5: Submit, after every episode, a survey of the upland disposal site accurate to one-tenth foot. Also include the Corps

5914

permit number, date of survey, and actual quantities of material deposited at the site. The permittee shall substantiate the total quantity dredged by including calculations used to determine the increased volume (in cubic yards) of material deposited during the episode. In addition, provide a map showing areas within dredge areas 1, 2, 4, and 5 that were dredged during the episode. Please note that a post-dredge survey may serve as a pre-dredge survey for the next episode. You shall also log all quantities of material leaving the upland disposal site and include this volume in your submittals.

For dredge area 3: Submit, within 15 days of the last disposal activity (last is defined as that activity after which no further dredging in that area occurs for one month), a survey with accuracy to one-tenth foot which delineates the areas dredged and the dredged depths. **Also, include the Corps permit number, episode number, dates of dredging commencement and completion, actual quantities dredged for the project, and actual quantities of overdepth.**

The permittee shall substantiate the total quantity dredged by including calculations used to determine the volume difference (in cubic yards) between the Before and Post-Dredging Surveys and explain any variation in quantities greater than 15% beyond estimated quantities. **All surveys shall be accomplished by a licensed surveyor and signed by the permittee to certify their accuracy.** Use of other surveys, if conducted within 60 days before or after dredging, may also be used.

A copy of the post dredge survey should be sent to the National Ocean Service for chart updating: NOAA/National Ocean Service, Map and Chart Branch, (Attn: N/CG2211), SSMC3, Room 6211, 1315 East-West Highway, Silver Spring, Maryland 20910.

4. **The permittee or dredge contractor shall inform this office when a dredge episode actually commences, is suspended (suspension is when the dredge contractor leaves the dredge site for more than 1 week for reasons other than equipment maintenance), is restarted and the actual date of completion. Each notification should include the Corps permit number and dredge episode number. The information can be sent to the attention of Mr. David Ammerman, in writing to the Corps of Engineers, Regulatory Branch, at the above address; FAXed to (707) 443-7728; or via telephone message at (707) 443-0855.**
5. The permittee shall allow the dredging area and equipment to be inspected by the Corps staff upon request.
6. For each dredging episode, the permittee shall be responsible for obtaining a letter of water quality certification or waiver

6 of 14

from the Regional Water Quality Control Board (RWQCB) and authorization from the California Coastal Commission (CCC). Water quality certification and CCC authorization will be a prerequisite to the District Engineer's decision to approve or disapprove specific dredging episodes pursuant to the policies and 33 CFR 325.2(b)(1)(ii) and 325.2(b)(2)(ii).

7. For each dredging episode, the permittee shall provide a copy of the Dredge Material Analysis to the Environmental Protection Agency (San Francisco Office, Attn: Brian Ross), U.S. Fish and Wildlife Service (Arcata Office, Attn: Randy Brown), National Marine Fisheries Service (Arcata Office, Attn: Mike Kelly), and California Department of Fish and Game (Menlo Park Office, Attn: Becky Ota) concurrent with the RWQCB and Corps' receipt of this information. Agency comments submitted to the Corps within 15 calendar days thereafter will be given full consideration in the decision on dredged material disposal.

8. If a land, ocean, or other aquatic disposal site becomes available for use during the life of the permit, the permittee shall evaluate these disposal alternatives, taking into consideration cost, existing technology, and logistics in light of the overall project purpose to facilitate compliance with the 404(b)(1) Guidelines. This evaluation shall be submitted to the Corps at least 60 calendar days before commencement of subsequent dredging episodes. The District Engineer, upon review of this information and after consultation with other resource agencies, may direct the permittee to use such sites in lieu of or in addition to the Whaler Island Disposal Site under authority of 33 CFR 325.7 and 40 CFR 230.10(a).

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. Limits of this authorization:

- a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

7. You understand and agree that, if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the structural work or obstructions caused thereby, without expenses to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Richard D. Taylor June 7, 2001
(PERMITTEE) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Timothy S. O'Rourke 14 Jun 01
(DISTRICT ENGINEER) (DATE)

TIMOTHY S. O'ROURKE
Lieutenant Colonel
District Engineer

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

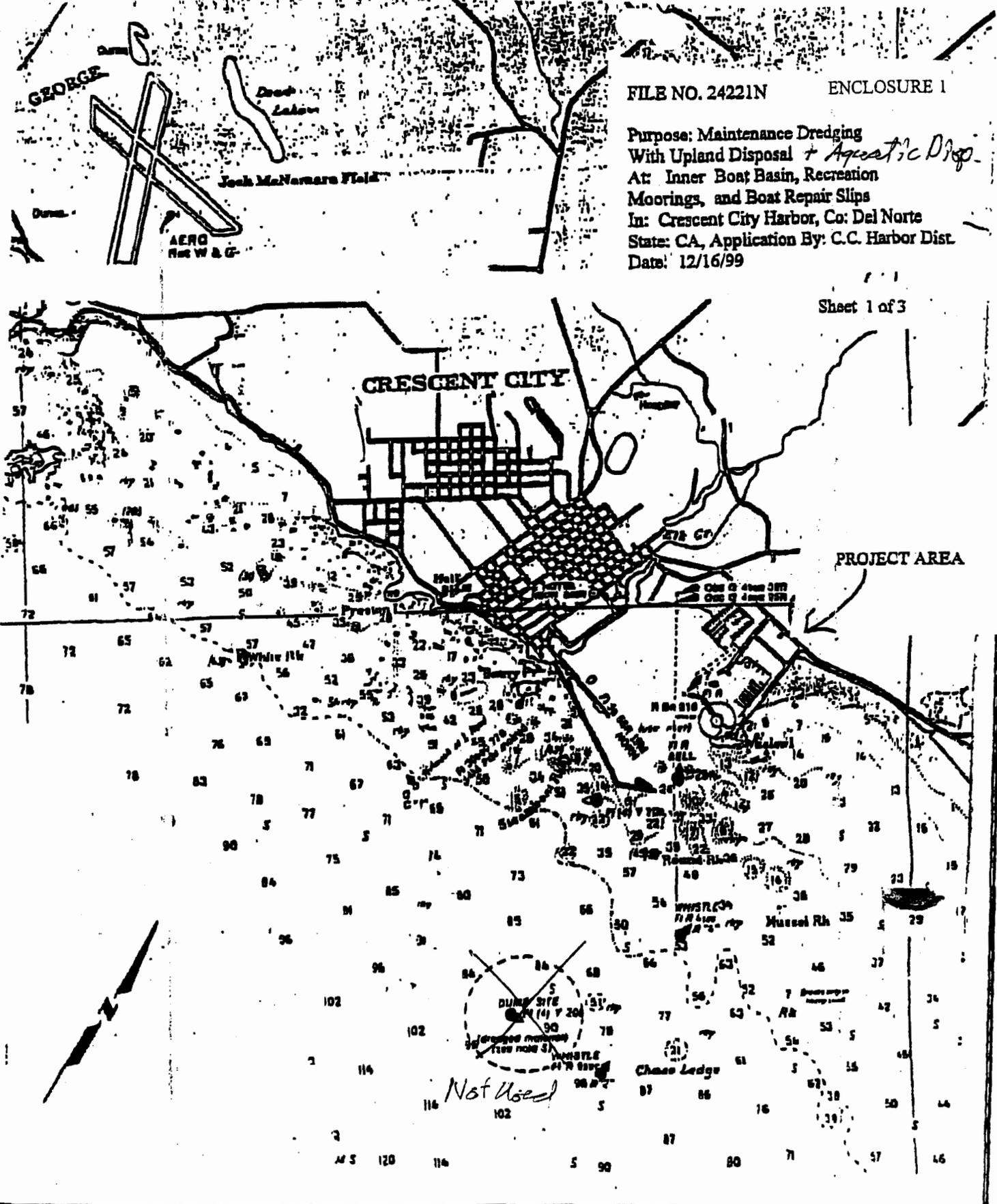
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FILE NO. 24221N

ENCLOSURE 1

Purpose: Maintenance Dredging
With Upland Disposal + *Aquatic Drop*
At: Inner Boat Basin, Recreation
Moorings, and Boat Repair Slips
In: Crescent City Harbor, Co: Del Norte
State: CA, Application By: C.C. Harbor Dist.
Date: 12/16/99

Sheet 1 of 3



VICINITY MAP OF PROPOSED DREDGING AREA
Crescent City, California

PLATE
1

PROJECT NUMBER 0839-01

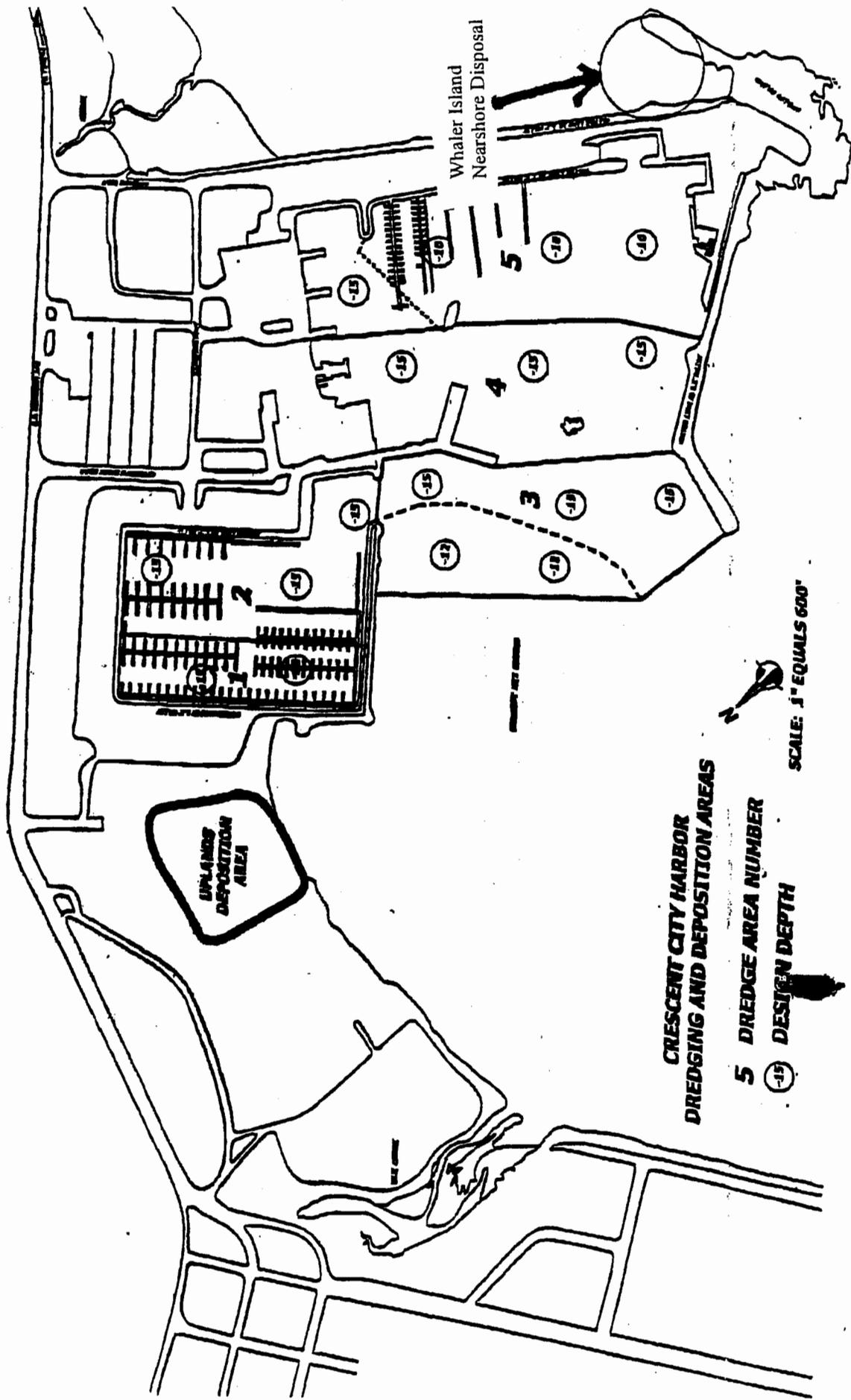
05-20-99

10 of 14

Applied
Environmental
Technologies, Inc.

PLATE 1

Purpose: Maintenance Dredging
 With Upland Disposal & *Aggregated Proposed*
 At: Inner Boat Basin, Recreation
 Moorings, and Boat Repair Slips
 In: Crescent City Harbor, Co: Del Norte
 State: CA, Application By: C.C. Harbor Dist
 Date: 12/16/99



11914

Enclosure 1

Table 2.
Sediment Grain Sizes
Crescent City Harbor Investigation
August 1999

Grain Size	Harbor								
	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	
Wood	17.32%	1.77%	6.46%	1.89%	0.00%	0.00%	0.00%	0.00%	0.00%
Gravel	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sand	52.41%	88.88%	51.71%	56.61%	98.57%	98.74%	97.37%	99.19%	99.19%
Silt	20.81%	6.44%	28.27%	30.77%	0.64%	0.52%	1.44%	0.66%	0.66%
Clay	9.47%	2.92%	13.57%	10.74%	0.74%	0.69%	0.70%	0.15%	0.15%
Percent Retained on 200 Sieve	69.73	90.64	58.16	58.50	98.57	98.79	97.86	99.19	99.19

FILE NO. 2422IN

Purpose: Maintenance Dredging
With Upland Disposal
At: Inner Boat Basin, Recreation
Mooring, and Boat Repair Slips
In: Crescent City Harbor, Co: Del Norte
State: CA, Application By: C.C. Harbor Dist.
Date: 12/16/99

Sheet 3 of 3

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Applied Environmental Technologies, Inc.

12914

NOTICE TO PERMITTEE

Please use the forms below to report the dates when you start and finish the work authorized by the enclosed permit. Also if you suspend work for an extended period of time, use the forms below to report the dates you suspended and resumed work. The second copy is for your records. If you find that you cannot complete the work within the time granted by the permit, please apply for a time extension at least one month before your permit expires. If you materially change the plan or scope of the work, it will be necessary for you to submit new drawings and a request for a modification of your permit.

(cut out as needed) -----

Date: _____

NOTICE OF COMPLETION OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated, 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that the work was completed on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

Date: _____

NOTICE OF RESUMPTION OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that work was resumed on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road 10 Crescent City, CA 95531-

Date: _____

NOTICE OF SUSPENSION OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that work was suspended on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

Date: _____

NOTICE OF COMMENCEMENT OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that work was commenced on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

13914

NOTICE TO PERMITTEE

Please use the forms below to report the dates when you start and finish the work authorized by the enclosed permit. Also if you suspend work for an extended period of time, use the forms below to report the dates you suspended and resumed work. The second copy is for your records. If you find that you cannot complete the work within the time granted by the permit, please apply for a time extension at least one month before your permit expires. If you materially change the plan or scope of the work, it will be necessary for you to submit new drawings and a request for a modification of your permit.

(cut out as needed) -----

Date: _____

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TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated, 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that the work was completed on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

Date: _____

NOTICE OF RESUMPTION OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that work was resumed on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road 10 Crescent City, CA 95531-

Date: _____

NOTICE OF SUSPENSION OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

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Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

Date: _____

NOTICE OF COMMENCEMENT OF WORK under Department of the Army permit No. Itrim::0::00-024221-0N

TO: District Engineer, US Army Corps of Engineers, Regulatory Branch, 333 Market Street, 8th Floor, San Francisco, CA 94105-2197

In compliance with the conditions of the permit dated 14 June 2001, to conduct maintenance dredging at the Crescent City Harbor in Crescent City, California, this is to notify you that work was commenced on _____.

Permittee: Crescent City Harbor District Lindsay A. Marks
Address: 101 Citizens Dock Road Crescent City, CA 95531-

14914

California Regional Water Quality Control Board
North Coast Region

Order No. R1-2000-59
ID No. 1A76119ODN

EXHIBIT NO. 8
APPLICATION NO. 1-05-058 NCRWQCB WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2000-59 FOR CRESCENT CITY HARBOR DISTRICT MAINTENANCE DREDGING ADOPTED 8/25/00 (1 of 12)

WASTE DISCHARGE REQUIREMENTS

FOR

**CRESCENT CITY HARBOR DISTRICT
MAINTENANCE DREDGING
DISTRICT BERTHING AREAS AND FEDERAL CHANNEL**

Del Norte County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter the Regional Water Board) finds that:

1. The Crescent City Harbor District (hereinafter discharger) submitted a Report of Waste Discharge dated December 14, 1999. The report describes maintenance dredging of Crescent City Harbor to maintain navigation within the harbor.
2. The discharger has described two locations for dredge material disposal. The areas are:
 - a. A 15-acre upland disposal site, located northwest of the inner boat basin. During disposal operations, dredge materials are discharged to the pond by a suction cutter dredge and excess water is decanted and discharged back to the harbor. Small quantities of material are sometimes removed by a shore-based clamshell operation from various areas of the harbor, such as the vicinity of the boatlift facility and the launch ramp area, and trucked to the uplands deposition site.
 - b. The beach and near-shore waters just east of the Whaler Island causeway.

Utilization of the two disposal sites would be on the following schedule:

- a. The upland disposal site would be used on a year-round basis, subject to its capacity limitations and dredging needs within the harbor.
 - b. The beach and near-shore waters to the east of the Whaler Island causeway would only be used between August 1 and December 31.
3. Dredging depth will vary throughout the harbor depending on the needs of the vessels using specific areas. The harbor has been divided in to five areas as shown on attachment A of this order and includes the following depths and volumes:

<u>Area</u>	<u>Design Depth</u>	<u>Volume</u>
1	-15 feet MLLW	will not be dredged this cycle
2	-15 feet MLLW	49,739 cubic yards
3	-12 & -15 foot MLLW	99,073 cubic yards
4	-15 feet MLLW	89,647 cubic yards
5	-10 & -15 MLLW	59,621 cubic yards

Exhibit 9

The total volume of dredging needed in the harbor is 298,080 cubic yards. Typically, areas are over-dredged by 2 feet; which would bring the total to 457,020 cubic yards.

4. The criteria for the evaluation of the disposal sites for dredged material include:
 - a. chemical constituents
 - b. physical characteristics
 - c. bioassay results

All three criteria have been used to determine the suitability of the dredged materials for the proposed disposal areas. The grain-size measurements in Areas 2, 4, and 5 show less than 60 percent sand. In Area 3, the grain-size measurements show that 90 percent of the material is sand and would be suitable for beach replenishment.

No significant chemical constituents were detected in the samples collected throughout the harbor.

Bioassay results show that in Area 3, survival was not statistically different than that of control tests. Areas 2, 4, and 5 showed a lower survival rate than the control tests. Area 2 was statistically lower, which indicates that the materials should not be discharged to the beach area, but are suitable for upland disposal. Areas 4 and 5 were not significantly different from the control test and should be suitable for beach replenishment.

5. The boatlift facility associated with the repair yard is located in Area 4. The area immediately surrounding the boatlift has historically shown elevated levels of copper. Dredged materials from this area are not suitable for beach disposal and all materials dredged from this area, unless shown to be suitable by specific testing, shall be discharged to the upland site.
6. The Regional Water Board's Water Quality Control Plan for the North Coast Region includes water quality objectives and receiving water limitations to protect beneficial uses and to prevent nuisances.
7. Crescent City Harbor is considered a bay pursuant to the Basin Plan. The beneficial uses for Crescent City Harbor include:
 - a. navigation
 - b. water contact recreation
 - c. non contact water recreation
 - d. commercial and sport fishing
 - e. wildlife habitat
 - f. marine habitat
 - g. migration of aquatic organisms
 - h. fish spawning, reproduction and/or early development
 - i. shellfish harvesting

2 of 12

Waste Discharge Requirements
Order No. R1-2000-59

- g. migration of aquatic organisms
- h. fish spawning, reproduction and/or early development
- i. shellfish harvesting

8. The discharge is presently governed by Waste Discharge Requirements Order No. 92-103, adopted by the Regional Water Board on August 27, 1992.
9. Permitting of the proposed dredging is categorically exempt from provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) under 14 California Code of Regulations Sections 15301 and 15304 as an existing facility and as an activity involving minor alterations to land (specifically, maintenance dredging), respectively.
10. The Regional Water Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
11. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
12. The permitted discharge is consistent with the provisions of State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California. The impact on existing water quality will be insignificant.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements (Order No. 92-103) are rescinded and the discharger, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, shall upon the issuance of this Order comply with the following:

A. EFFLUENT LIMITATIONS:

1. The discharge of decant water from the dredge material settling pond shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>30-day average</u>
Suspended solids	mg/l	100
Settleable solids	ml/l	1.0

B. DISCHARGE PROHIBITIONS

1. The discharge of any waste not specifically regulated by this Order is prohibited.
2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code, is prohibited.

30912

Waste Discharge Requirements
Order No. R1-2000-59

- 3. The discharge of waste to land that is not under the control of the discharger is prohibited.
- 4. The discharge of dredge material from Area 2 to the beach replenishment area is prohibited. (The dredge material from this area may be discharged to the upland site.)
- 5. The discharge of dredge material from the area adjacent to the boatlift facility to the beach replenishment area is prohibited. (The dredge material from this area may be discharged to the upland site.)
- 6. The discharge rate of dredge material from Area 1 to the beach replenishment area is prohibited unless it can be shown by appropriate testing that the materials are suitable for beach disposal, per Finding 4. (The dredge material from this area may be discharged to the upland site.)

C. RECEIVING WATER LIMITATIONS:

- 1. Waters shall not contain substances in concentrations that result in deposition of material that cause nuisance or adversely affect beneficial uses.
- 2. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause a nuisance or adversely affect beneficial uses.
- 3. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.

D. GENERAL PROVISIONS

- 1. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel.

2. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found to be invalid, the remainder of these requirements shall not be affected.

3. Operation and Maintenance

The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

4912

Waste Discharge Requirements

-5-

Order No. R1-2000-59

5. Change in Ownership

In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the following items by letter, a copy of which shall be forwarded to the Regional Water Board:

- a. existence of this Order, and
- b. the status of the discharger's annual fee account

6. Vested Rights

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from his liability under federal, State, or local laws, nor create a vested right for the discharger to continue the waste discharge.

7. Monitoring

The discharger shall comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2000-59 and any modifications to these documents as specified by the Regional Water Board Executive Officer. Such documents are attached to this Order and incorporated herein. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.

8. Inspections

The discharger shall permit authorized staff of the Regional Water Board:

- a. entry upon premises in which an effluent source is located or in which any required records are kept;
- b. access to copy any records required to be kept under terms and conditions of this Order;
- c. inspection of monitoring equipment or records; and
- d. sampling of any discharge.

9. Noncompliance

In the event the discharger is unable to comply with any of the conditions of this Order due to:

- a. breakdown of waste treatment equipment,
- b. accidents caused by human error or negligence, or
- c. other causes such as acts of nature,

the discharger shall notify the Regional Water Board Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephonic notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

5912

Waste Discharge Requirements -6-
Order No. R1-2000-59

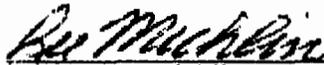
10. Revision of Requirements

The Regional Water Board will review this Order periodically and may revise requirements when necessary.

The Regional Water Board requires the discharger to file a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

Certification

I, Lee A. Michlin, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on August 25, 2000.



Lee A. Michlin
Executive Officer

(cc:harwdr2(XIU))

6 of 12

California Regional Water Quality Control Board
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2000-59

FOR

CRESCENT CITY HARBOR DISTRICT
MAINTENANCE DREDGING

Del Norte County

Monitoring

The purpose of this monitoring program is to demonstrate that the requirements of Order No. R1-2000-59 are being met. The program calls for routine monitoring at regular intervals during dredging operations.

Effluent Monitoring

Representative samples shall be collected from the settling pond outfall and analyzed for the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
Suspended solids	mg/l	Grab	Once weekly
Settleable solids	ml/l	Grab	Once weekly
Turbidity	NTU	Grab	Once weekly

Receiving Water Monitoring

Two samples shall be collected from the receiving waters. One shall be a background sample, taken from an area of the harbor unaffected by the discharge. The other shall be taken within 200 feet of the point of entrance of the discharge into the receiving waters. The samples shall be analyzed for the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
Turbidity	NTU	Grab	Once weekly

70912

Monitoring and Reporting
Order No. R1-2000-59

2

Monitoring and Records

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

The discharger shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements.

Records of monitoring information shall include:

- i. The date, exact place, and time of sampling or measurements;
- ii. The individual(s) who performed the sampling or measurements;
- iii. The date(s) analyses were performed;
- iv. The individual(s) who performed the analyses;
- v. The analytical techniques or methods used;
- vi. The results of such analyses;
- vii. The method detection limit (MDL); and
- viii. The practical quantitation level (PQL) or the limit of quantitation (LOQ).

Unless otherwise noted, all sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association.)

All Permit applications, reports, or information submitted to the Regional Water Board, shall be signed by either a principal executive officer or ranking elected official of Crescent City Harbor District.

Any person signing a document under this monitoring program shall make the following certification:

"I certify under penalty of perjury that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Reporting

Monitoring reports shall be submitted to the Board for each month on or before the 15th day of the following month. In reporting the data, the discharger shall arrange the data in tabular form so that the date, the constituents and the concentrations are readily discernable. The data shall be summarized in such a manner as to clearly illustrate

8 of 12

Monitoring and Reporting
Order No. R1-2000-59

3

compliance with waste discharge requirements. During periods of no active dredging or disposal operations, the reports shall certify no discharge.

Ordered by *Lee A. Michlin*
Lee A. Michlin
Executive Officer

August 25, 2000

(CrescityM&R)

9/2/02

California Regional Water Quality Control Board
North Coast Region

GENERAL MONITORING AND REPORTING PROVISIONS

February 3, 1971
(Retyped May 20, 1993)

GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

Unless otherwise noted, all sampling, sample preservation, and analyses shall be conducted in accordance with the current edition of "Standard Methods for the Examination of Water and Waste Water" or approved by the Executive Officer.

All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health or a laboratory approved by the Executive Officer.

All samples shall be representative of the waste discharge under the conditions of peak load.

GENERAL PROVISIONS FOR REPORTING

For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge in full compliance with requirements at the earliest time and submit a timetable for correction.

By January 30 of each year, the discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

The discharger shall file a written report within 90 days after the average dry weather flow for any month that equals or exceeds 75 percent of the design capacity of the waste treatment or disposal facilities. The report shall contain a schedule for studies, design, and other steps needed to provide additional capacity or limit the flow below the design capacity prior to the time when the waste flow rate equals the capacity of the present units.

10 of 12

California Regional Water Quality Control Board
North Coast Region

CONTINGENCY PLANNING AND NOTIFICATION REQUIREMENTS

FOR

ACCIDENTAL SPILLS AND DISCHARGES

ORDER NO. 74-151

The California Regional Water Quality Control Board, North Coast Region, finds that:

1. Section 13225 of the Porter-Cologne Water Quality Act requires the Regional Board to perform general duties to assure positive water quality control.
2. The Regional Board has been advised of situations in which preparations for, and response to accidental discharges and spills have been inadequate.
3. Persons discharging waste or conveying, supplying, storing, or managing wastes or hazardous materials have the primary responsibility for contingency planning, incident reporting and continuous and diligent action to abate the effects of such unintentional or accidental discharge.

THEREFORE, IT IS HEREBY ORDERED THAT:

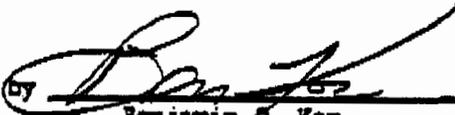
- I. All persons who discharge wastes or convey, supply, store, or otherwise manage wastes or other hazardous material shall:
 - A. Prepare and submit to this Regional Board, according to a time schedule prescribed by the Executive Officer, a contingency plan defining the following:
 1. Potential locations and/or circumstances under which accidental discharge incidents might be expected to occur,
 2. Possible water quality effects of accidental discharges,
 3. The conceptual plan for cleanup and abatement of accidental discharge incidents, including:
 - a. The individual who will be in charge of cleanup and abatement activities on behalf of the discharger,
 - b. The equipment and manpower available to the discharger to implement the cleanup and abatement plans,
 - B. Immediately report to the Regional Board any accidental discharge incidents. Such notification shall be made by telephone as soon as the responsible person or his agent has knowledge of the incident.
 - C. Immediately begin diligent and continuous action to cleanup and abate the effects of any unintentional or accidental discharge. Such action shall include temporary measures to abate the discharge prior to completing permanent repairs to damaged facilities.

11/9/12

Order No. 74-151

-2-

- D. Confirm the telephone notification in writing within two weeks of the telephone notification. The written notification shall include: reasons for the discharge, duration and volume of the discharge, steps taken to correct the problem and steps being taken to prevent the problem from recurring.
- II. Upon original receipt of phone report (I.B.), the Executive Officer shall immediately notify all affected agencies and known users of waters affected by the unintentional or accidental discharge.
- III. Provide updated information to the Regional Board in the event of change of staff, size of the facility, or change of operating procedures which will affect the previously established contingency plan.
- IV. The Executive Officer or his employees shall maintain liaison with the discharger and other affected agencies and persons to provide assistance in cleanup and abatement activities.
- V. The Executive Officer shall transmit copies of this Order to all persons whose discharges of waste handling activities are governed by Waste Discharge Requirements or an NDPES permit. Such transmittal shall include a current listing of telephone numbers of the Executive Officer and his key employees to facilitate compliance with Item I.B of this Order.

Ordered by 
 Benjamin D. Kor
 Executive Officer

July 24, 1974
 (Retyped February 15, 1990)

Your primary notification should be to the Regional Board office in Santa Rosa at (707) 575-2220. During off hours, you will be able to leave a recorded message at that number and, if you have a spill or discharge emergency, you will also be referred to the State Office of Emergency Services (OES) at (800) 852-7330. OES maintains a roster of key employees and will relay your notification to Regional Board staff.

12 of 12



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
333 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105-2197

Regulatory Branch

JUL 17 2006

SUBJECT: File Number 24221N, Sampling and Analysis Approval

Mr. Richard W. Parsons
RWP Dredging Management
2271 Los Encinos Road
Ojai, California 93023-9709

EXHIBIT NO. 9

APPLICATION NO.

1-05-058

CRESCENT CITY HARBOR
DISTRICT

REVIEW AGENCY
CORRESPONDENCE

Dear Mr. Parsons:

The U.S. Environmental Protection Agency and the Corps of Engineers, have completed their review of the sediment sampling and analysis plan (SAP) for the approximately 110,000 cubic yards of sediments proposed to be dredged from Crescent City Harbor, Crescent City, Del Norte County, California. The SAP is as presented in the report prepared by Applied Environmental Technologies Inc. entitled "Revised Tier I Evaluation and Proposed Grain Size Sampling Plan, Crescent City Harbor District, Crescent City, California" dated May 31, 2006 and its "Addendum" dated June 23, 2006.

The above agencies have approved the adequacy of the sampling plan as characterized and amended in the above reports. You have indicated in your addendum that material with less than 80% sand will be placed in the upland disposal site or not be dredged. You are reminded; however, that silty material will require additional testing if aquatic disposal is proposed.

Should you have any questions please call or write to Mr. Clyde Davis of our Regulatory Branch Division (415-977-8449), and refer to the file number at the head of this letter.

Sincerely,

A handwritten signature in cursive script that reads "Jane M. Hicks".

Jane M. Hicks
Chief, Regulatory Branch

Copies Furnished:

US EPA, San Francisco, CA, Attn: Ross